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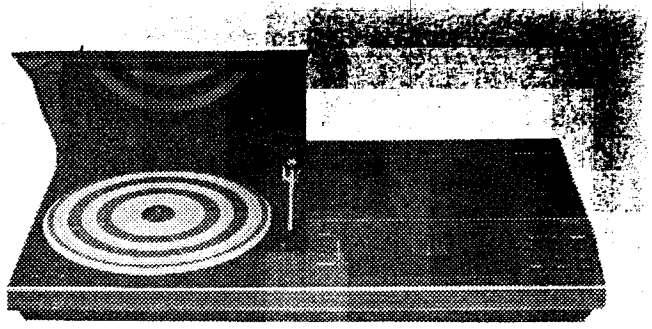

Beocenter 5000

Type 1802-1804

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Oxfordshire, OX9 4QY.
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Fax (01844) 352554
email:- mauritron@dial.pipex.com

SERVICE MANUAL

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List of Electrical Parts	3
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**Read this new section, which in future will form part at new service manuals*

MEASURING CONDITIONS

All DC voltages are measured relative to ground with voltmeter (inner resistance 10 Mohms).
DC voltages are stated in volts (V), ex.: 0.7 V.
Oscillograms and AC voltages are measured relative to signal ground with oscilloscope or voltmeter with an input resistance of 1 Mohm.
AC voltages are stated in millivolt (mV), ex.: 725 mV.
Voltages on the FM and AM. section ar emeasured without signal in position P6 - FM.
Voltages on the turntable section are measured in position PH(33 r.p.m.).
Voltages on the tape recorder section are measured in position TP, play back, (333 Hz, 250 pWb mm).
Signal paths are shown for AM (position MW) and FM and for AF right channel.
The tape recorder signal path in recording position is shown in right channel, and replay position is shown in left channel.
Mechanical switches are shown in neutral position.

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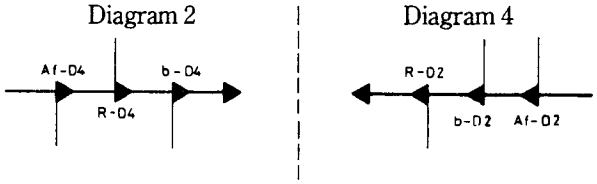
EXPLANATION TO DIAGRAM

Because of the large number of internal connections in the set the wire connections have been gathered into »bundles« in the diagram. The individual wire is provided with codes indicating where they lead to.
This principle is also applied in Bang & Olufsen's CTV diagrams.

INTERNAL CONNECTION ON A DIAGRAM PAGE

indicating by two identical letters (capital or small).

CONNECTION TO ANOTHER DIAGRAM PAGE



indicated by a letter (capital or small) and a diagram (D) number or by a small and a capital letter together with a diagram (D) number.

GROUND SYMBOLS
Three different ground symbols are used in the set.

= ground (motors, display, magnet coils, etc.)

= signal ground

= chassis

TP0
In the power supply on PC3 is stated a ground test point TP0. In this and only in this test point , and are connected to each other.
TP0 may therefore be used as reference for both DC measurings and signals measurings in the set. However, in connection with fault finding on the various modules the ground of the module in question should always be used as reference.
TP0 is used as reference at measurings of DC voltages from the power supply (PC3-4).

CO-ORDINATE NUMBERS
The biggest PC boards are provided with co-ordinate systems. The components on these PC boards are provided with a co-ordinate number on the diagram (smaller printing type than the position numbers) indicating in which co-ordinate they are placed on the PC board.
The co-ordinate numbers for the left channel of the output amplifier are stated in brackets in the diagram for right channel.

ADJUSTMENT OF NO-SIGNAL-CURRENT

Adjust no-signal-current with receiver cold and volume control turned down.
SPEAKERS MUST NOT BE CONNECTED.
With 3R224 (3R124) adjust to 10 mV DC measured across emitter resistor 3R226 (3R126) TP200/TP201 (TP100/TP101), or adjust to 25 mA in collector of 3IC200 (3IC100).

Symbol for safety resistors

When replacing components with this symbol use the same type and the same values for ohms and watts. The new components is to be mounted in the same way as the replaced.

DIAGRAM 1 TYPE 1802

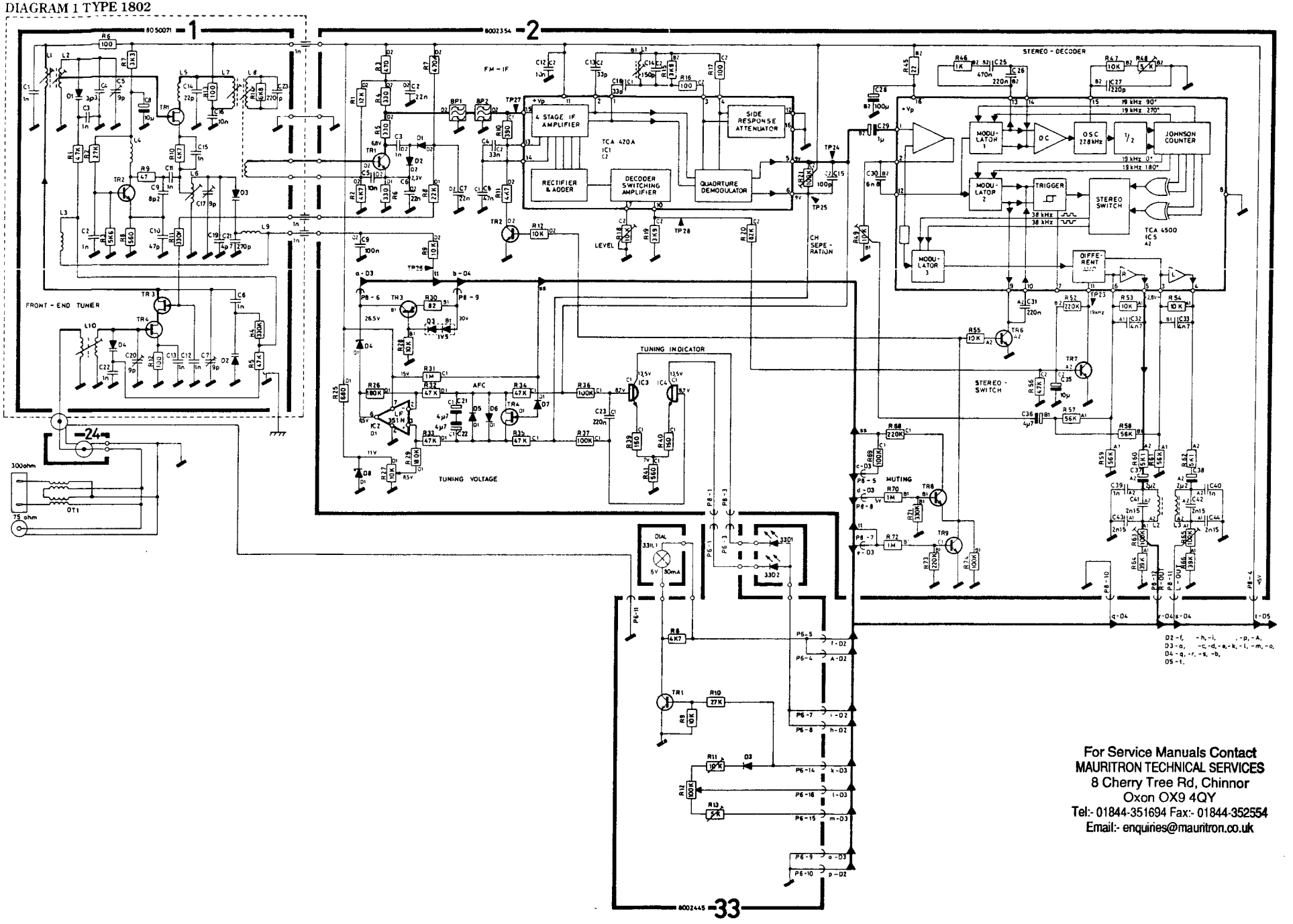


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DIAGRAM 1 TYPE 1804

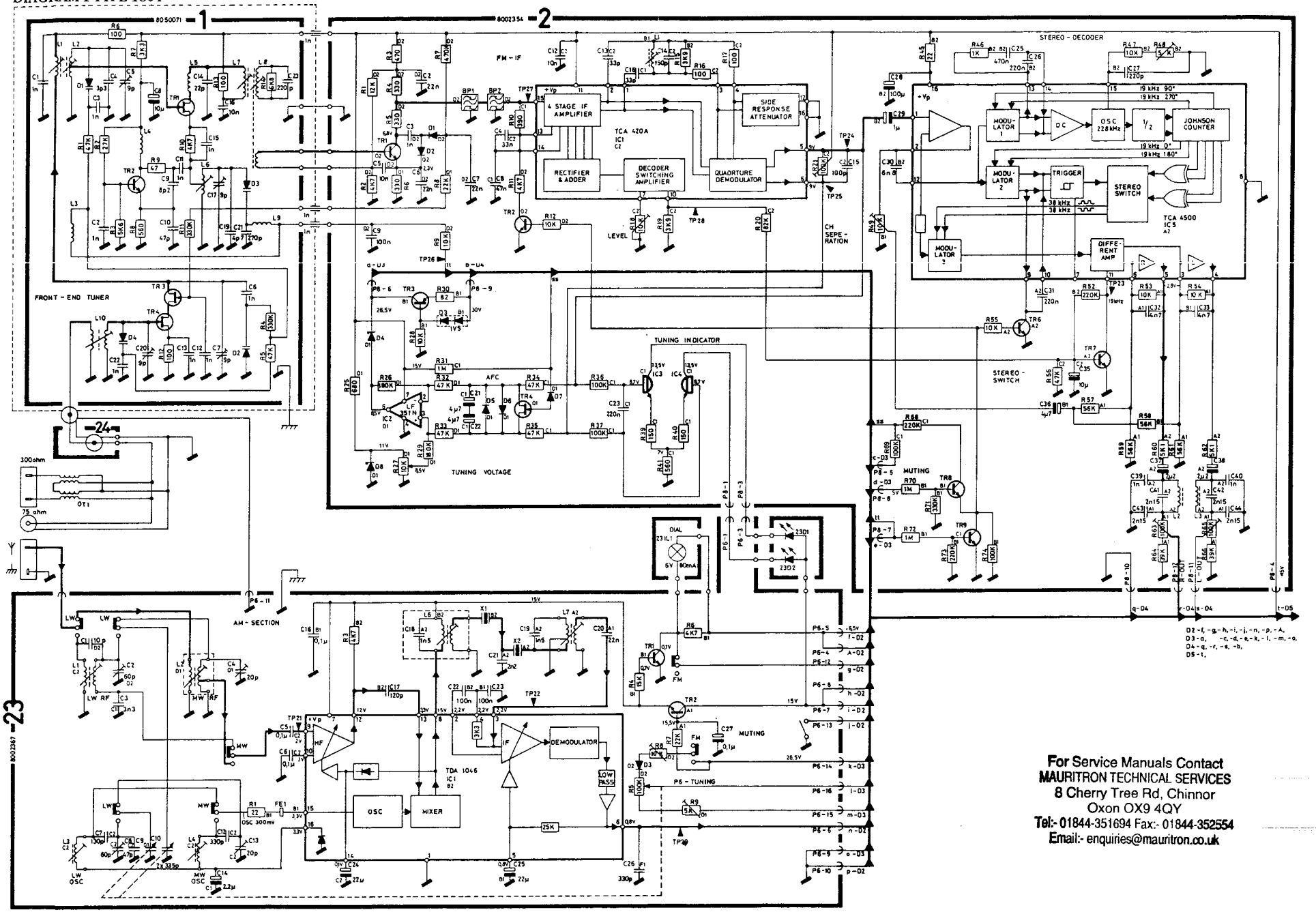

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DIAGRAM 2 TYPE 1802-1804

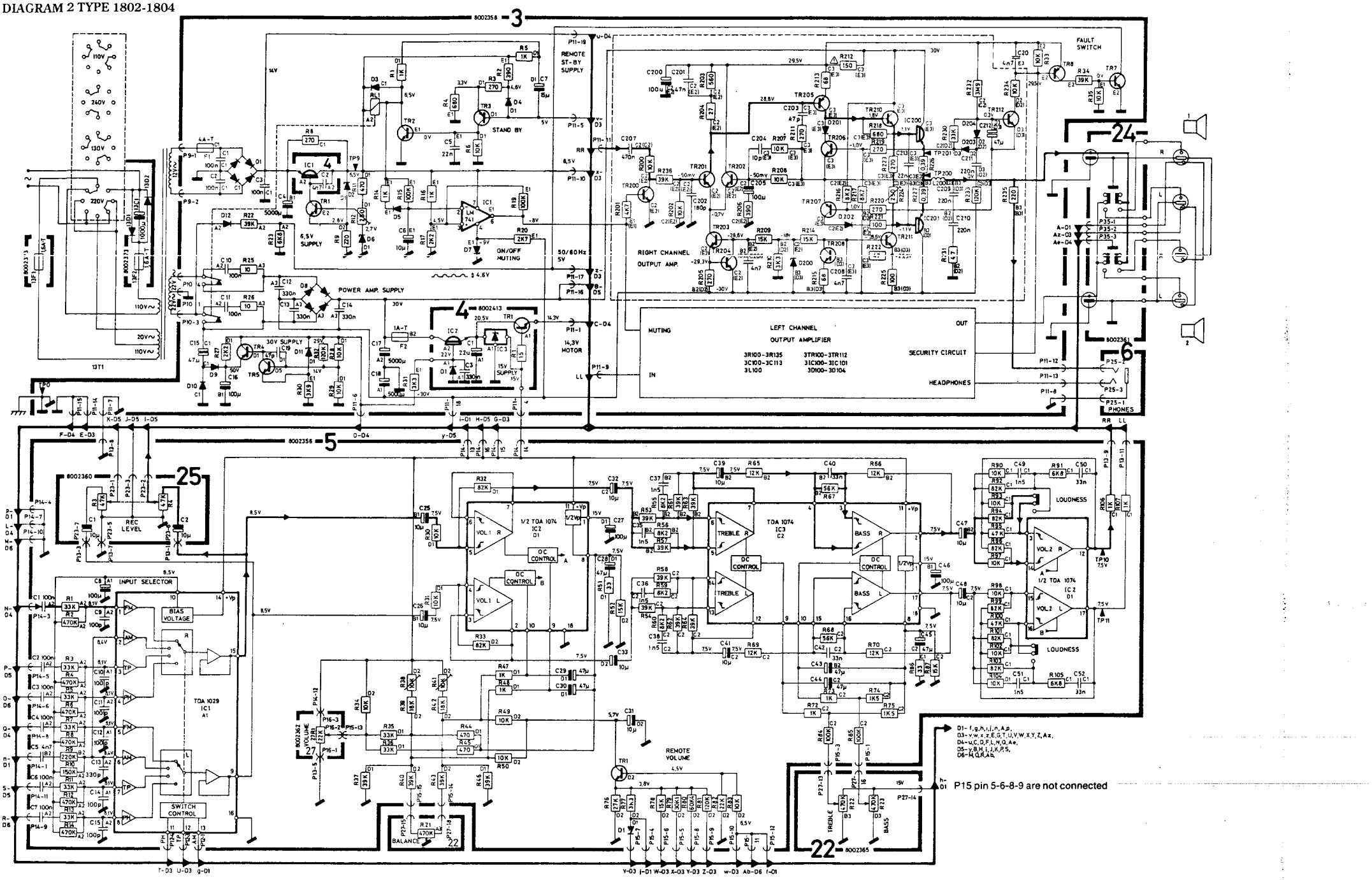

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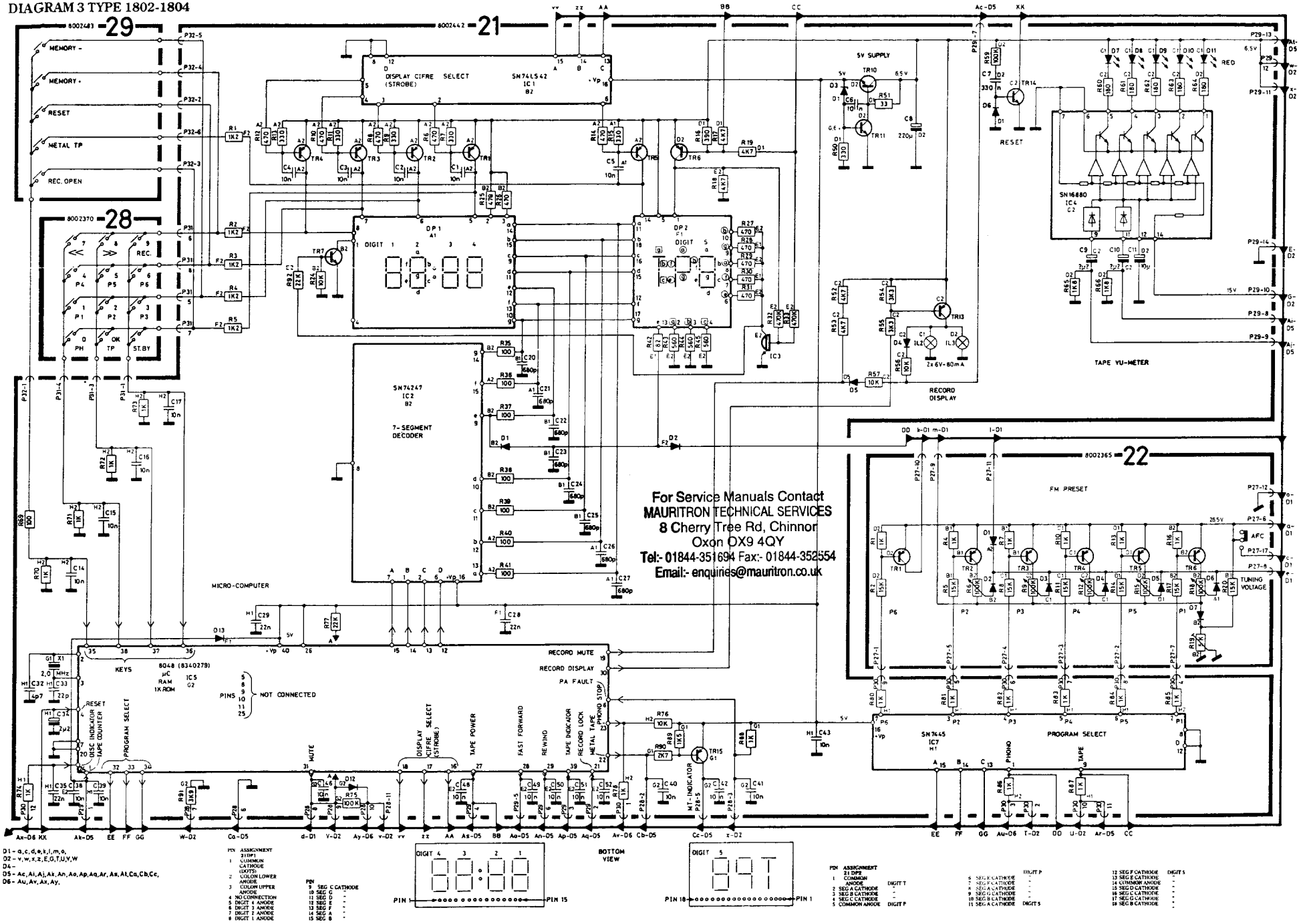
DIAGRAM 3 TYPE 1802-1804



FUNCTION TABLE FOR DIAGRAM 3

FUNCTION TABLE FOR MICRO-COMPUTER 21IC5													
	CONDITIONS			FUNCTION	RESULTS								
PIN	21	24	39		27	28	29	22	23	30	31	32	33	34
		0		PHONO	1	1	1		0	1	1	0	0	0
				P1	1	1	1		1	1	1	1	0	0
				P2	1	1	1		1	1	1	0	1	0
				P3	1	1	1		1	1	1	1	1	0
				P4	1	1	1		1	1	1	0	0	1
				P5	1	1	1		1	1	1	1	0	1
				P6	1	1	1		1	1	1	0	1	1
			1	TAPE	0	0	0		1	1	1	1	1	1
				STAND BY	1	1	1		1	1	0	1	1	1
	1			REC. OPEN										
				P1-REC.PAUSE	0	1	1		1	1/0	1	1	0	0
				P1-REC.	0	0	0		1	0	1	1	0	0
			1	≫	0	0	1				1			
			1	≪	0	1	0				1			
				METAL TP				0						

FUNCTION TABLE 21IC7 (SN 7445)											
FUNCTION	INPUTS				OUTPUT AT PINS						
	D	C	B	A	1	2	3	4	5	6	7	9
PHONO	0	0	0	0	0	1	1	1	1	1	1	1
P1	0	0	0	1	1	0	1	1	1	1	1	1
P2	0	0	1	0	1	1	0	1	1	1	1	1
P3	0	0	1	1	1	1	1	0	1	1	1	1
P4	0	1	0	0	1	1	1	1	0	1	1	1
P5	0	1	0	1	1	1	1	1	1	0	1	1
P6	0	1	1	0	1	1	1	1	1	1	0	1
TAPE	0	1	1	1	1	1	1	1	1	1	1	0
ST-BY	0	1	1	1	1	1	1	1	1	1	1	0

FUNCTION TABLE 21IC1 (SN74LS42)								
INPUTS				OUTPUT AT PINS				
D	C	B	A	2	3	4	5	6
0	0	0	1	0	1	1	1	1
0	0	1	0	1	0	1	1	1
0	0	1	1	1	1	0	1	1
0	1	0	0	1	1	1	0	1
0	1	0	1	1	1	1	1	0

FUNCTION TABLE 21IC2 (SN74247)											
DECIMAL ON DISPLAY	INPUTS				OUTPUTS						
	D	C	B	A	a	b	c	d	e	f	g
0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	1	1	0	0	1	1	1	1
2	0	0	1	0	0	0	1	0	0	1	0
3	0	0	1	1	0	0	0	0	1	1	0
4	0	1	0	0	1	0	0	1	1	0	0
5	0	1	0	1	0	1	0	0	1	0	0
6	0	1	1	0	0	1	0	0	0	0	0
7	0	1	1	1	0	0	0	1	1	1	1
8	1	0	0	0	0	0	0	0	0	0	0
9	1	0	0	1	0	0	0	0	1	0	0
OFF	1	1	1	1	1	1	1	1	1	1	1

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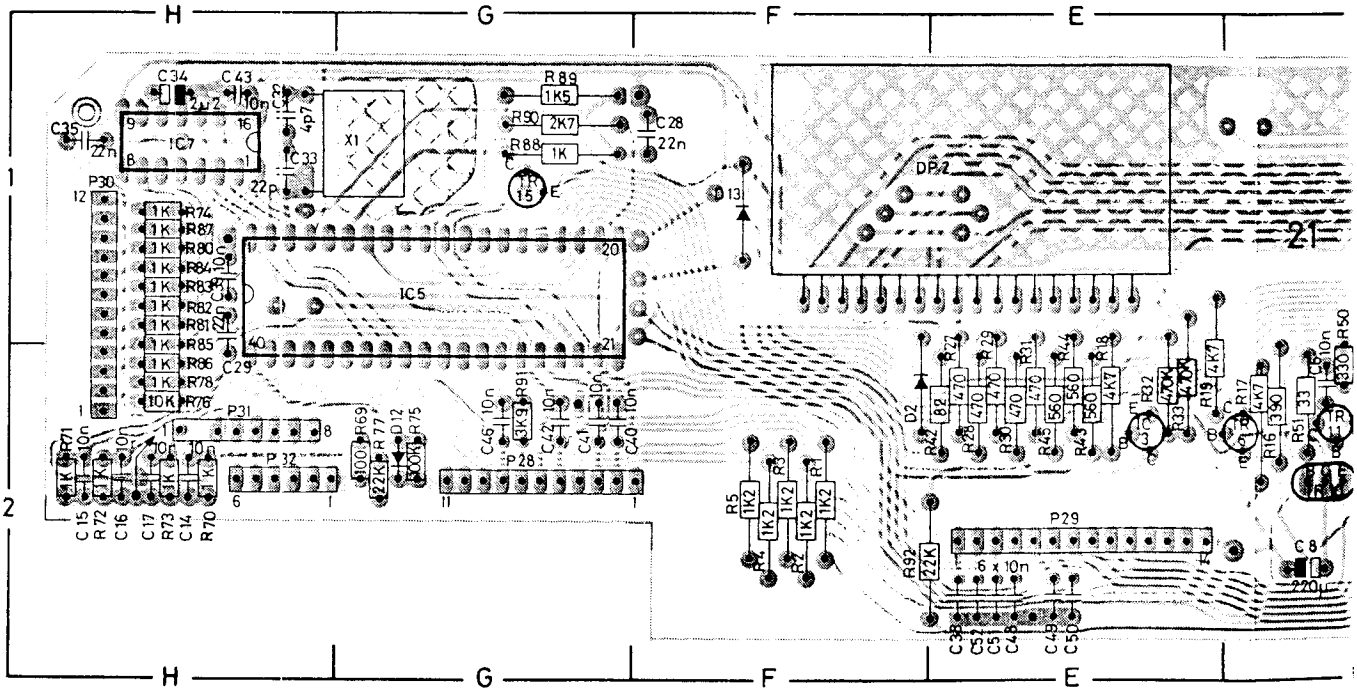
Microcomputer and Display, 8002442, PC21



UTER 21IC5			
31	32	33	34
1	0	0	0
1	1	0	0
1	0	1	0
1	1	1	0
1	0	0	1
1	1	0	1
1	0	1	1
1	1	1	1
0	1	1	1
1	1	0	0
1	1	0	0
1			
1			

FUNCTION TABLE 21IC7 (SN 7445)

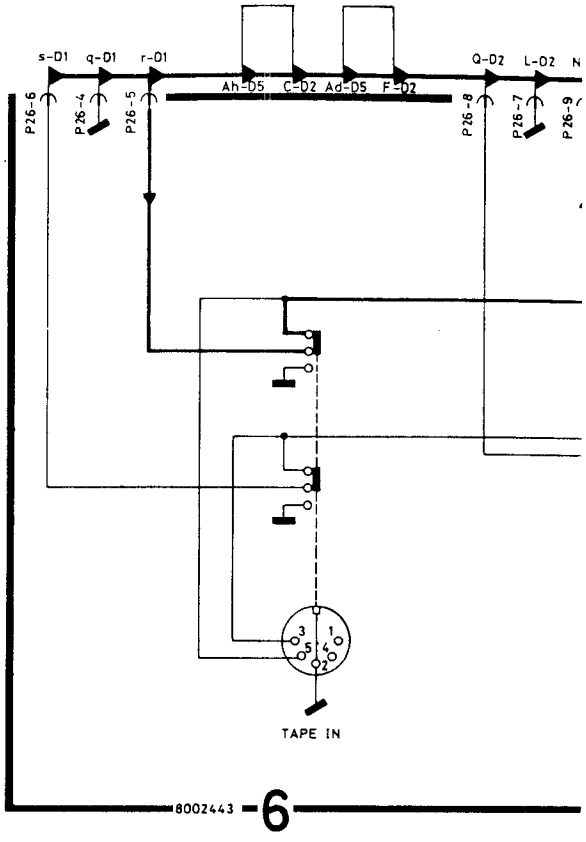
FUNCTION	INPUTS				OUTPUT AT PINS						
	D	C	B	A	1	2	3	4	5	6	7	9
PHONO	0	0	0	0	0	1	1	1	1	1	1	1
P 1	0	0	0	1	1	0	1	1	1	1	1	1
P 2	0	0	1	0	1	1	0	1	1	1	1	1
P 3	0	0	1	1	1	1	1	0	1	1	1	1
P 4	0	1	0	0	1	1	1	1	0	1	1	1
P 5	0	1	0	1	1	1	1	1	1	0	1	1
P 6	0	1	1	0	1	1	1	1	1	1	0	1
TAPE	0	1	1	1	1	1	1	1	1	1	1	0
ST-BY	0	1	1	1	1	1	1	1	1	1	1	0

FUNCTION TABLE 21IC1 (SN74LS42)

INPUTS				OUTPUT AT PINS				
D	C	B	A	2	3	4	5	6
0	0	0	1	0	1	1	1	1
0	0	1	0	1	0	1	1	1
0	0	1	1	1	1	0	1	1
0	1	0	0	1	1	1	0	1
0	1	0	1	1	1	1	1	0

FUNCTION TABLE 21IC2 (SN74247)

DECIMAL	INPUTS				OUTPUTS					
ON DISPLAY	D	C	B	A	a	b	c	d	e	f	g
0	0	0	0	0	0	0	0	0	0	0	1
1	0	0	0	1	1	0	0	1	1	1	1
2	0	0	1	0	0	0	1	0	0	1	0
3	0	0	1	1	0	0	0	0	1	1	0
4	0	1	0	0	1	0	0	1	1	0	0
5	0	1	0	1	0	1	0	0	1	0	0
6	0	1	1	0	0	1	0	0	0	0	0
7	0	1	1	1	0	0	0	1	1	1	1
8	1	0	0	0	0	0	0	0	0	0	0
9	1	0	0	1	0	0	0	0	1	0	0
OFF	1	1	1	1	1	1	1	1	1	1	1



002442, PC21

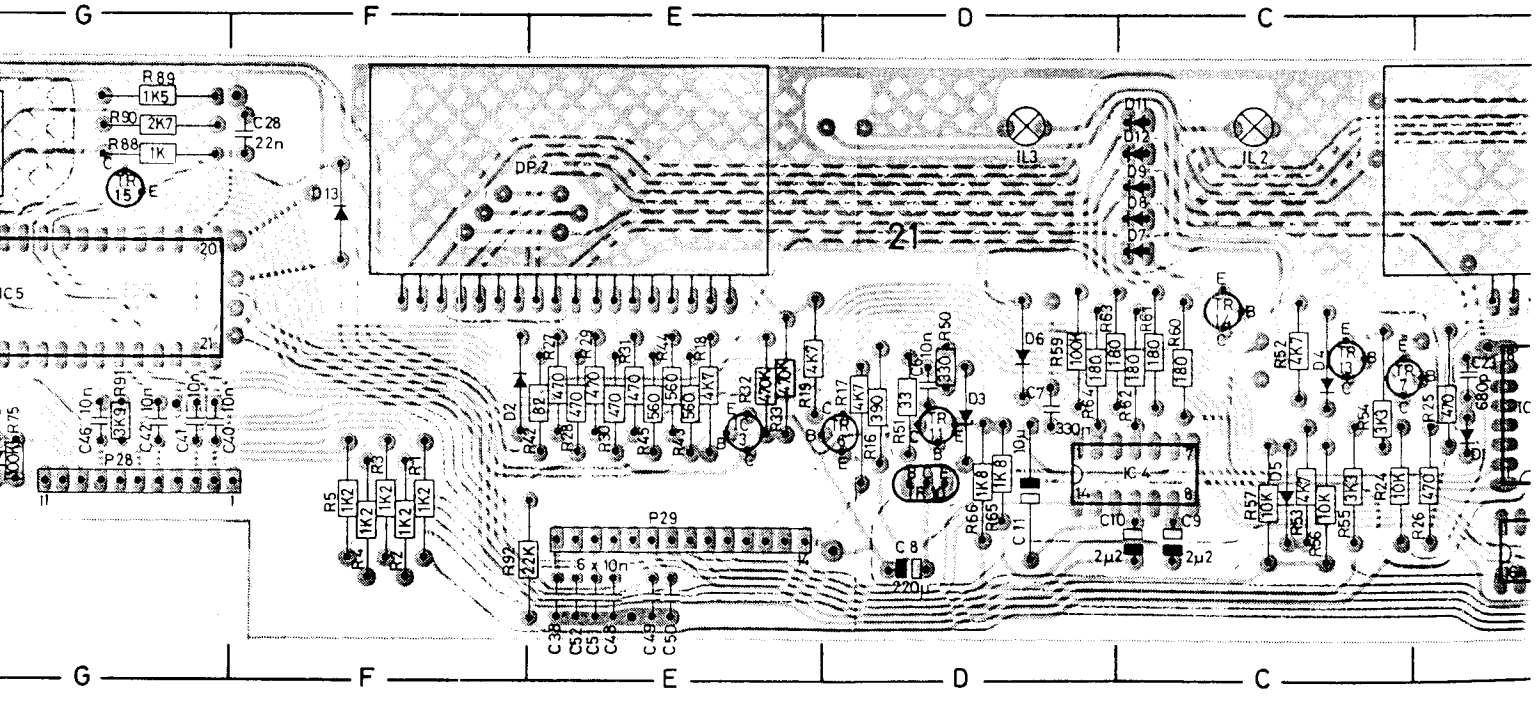
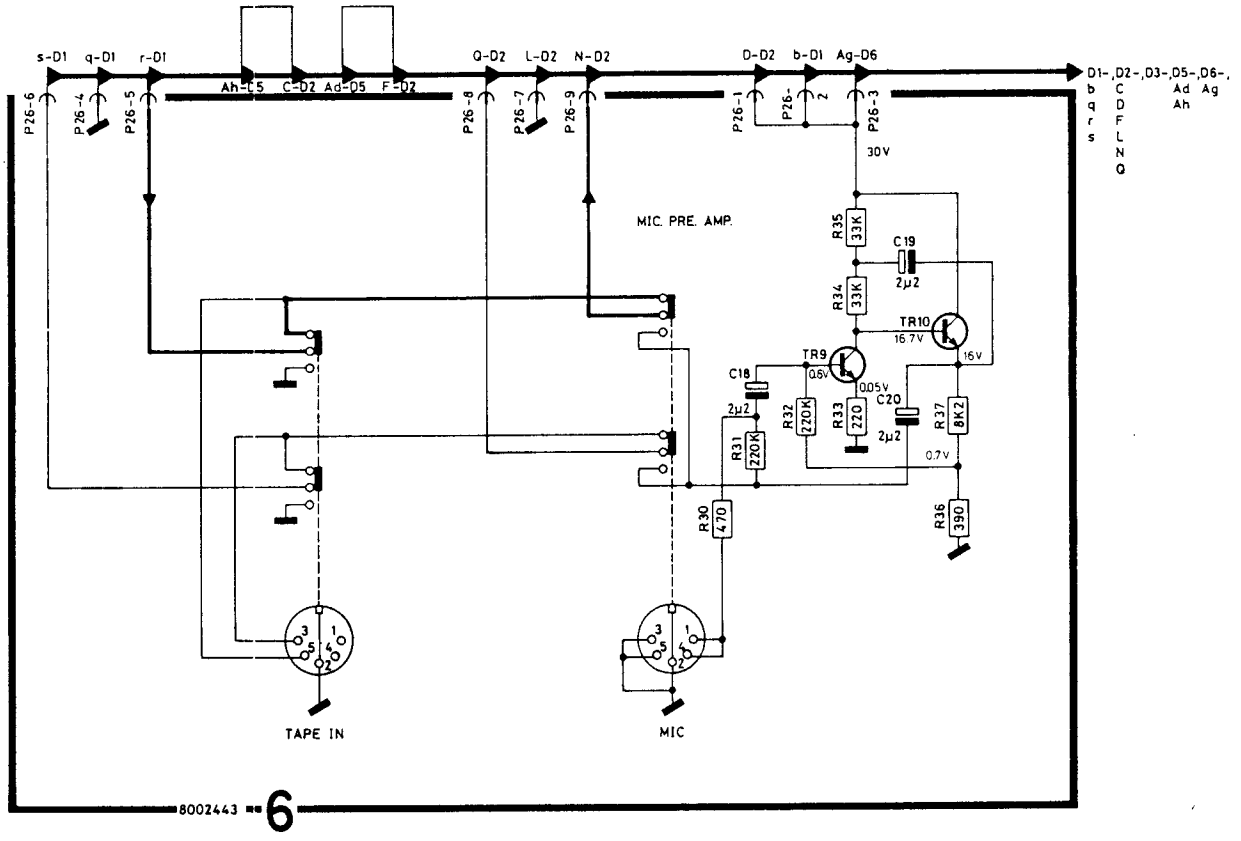


DIAGRAM 4 TYPE 1802-1804



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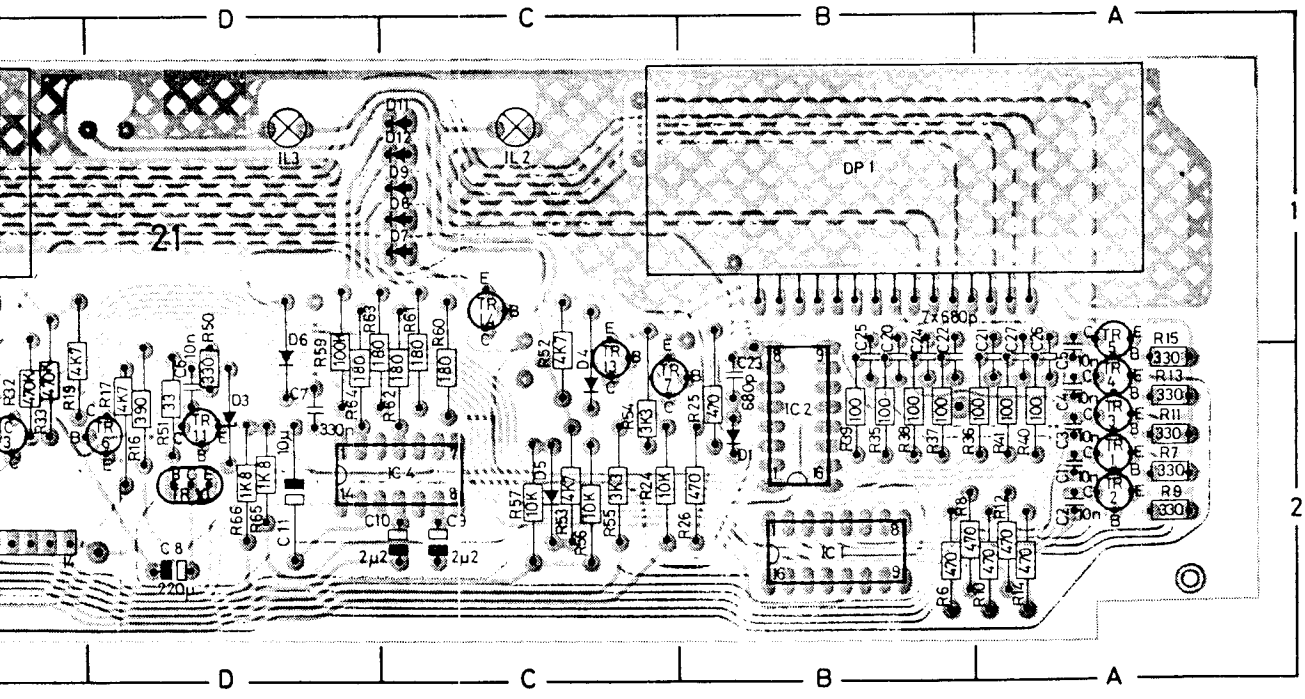

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1-7

DIAGRAM 5 TYPE 1802-1804

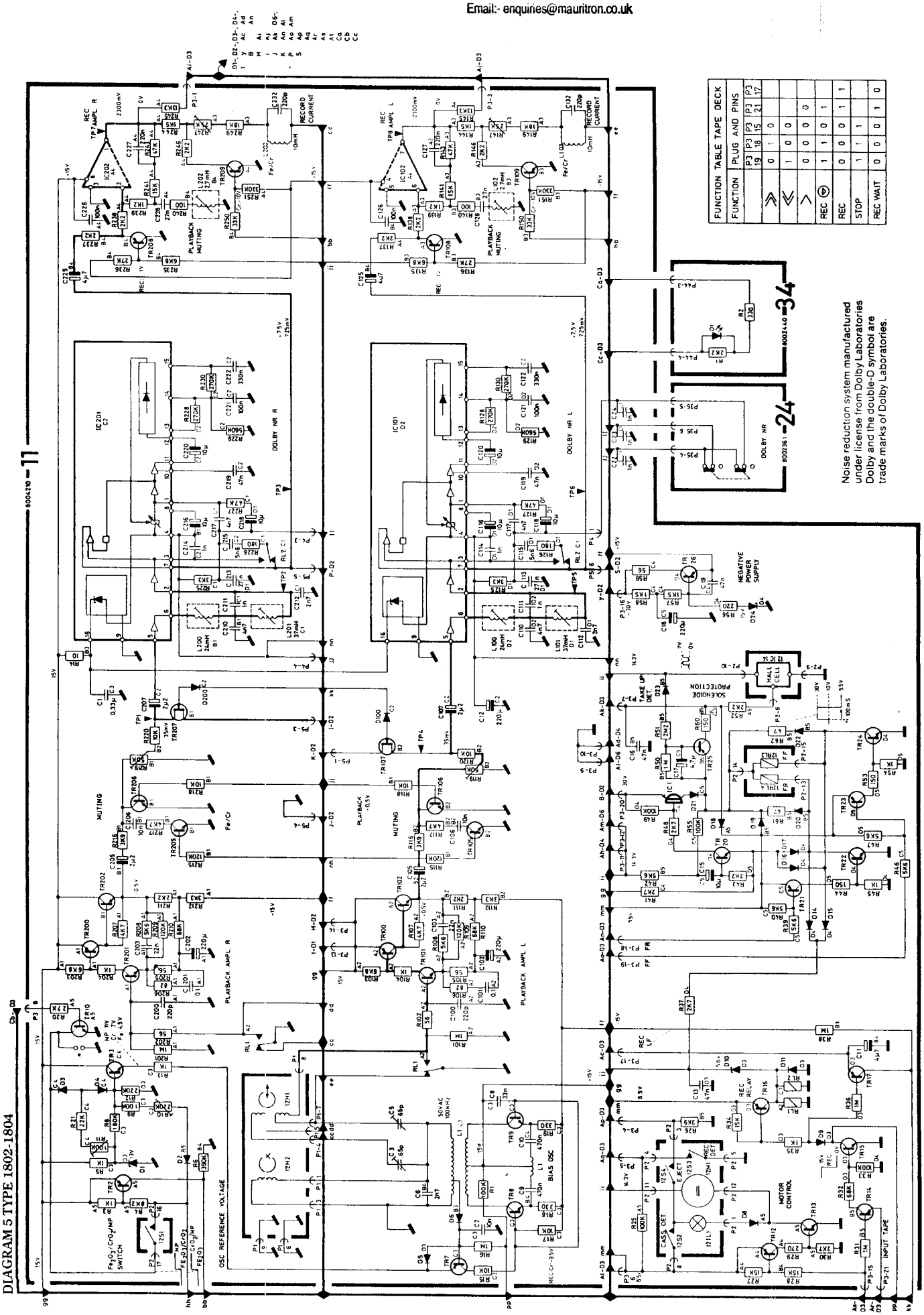
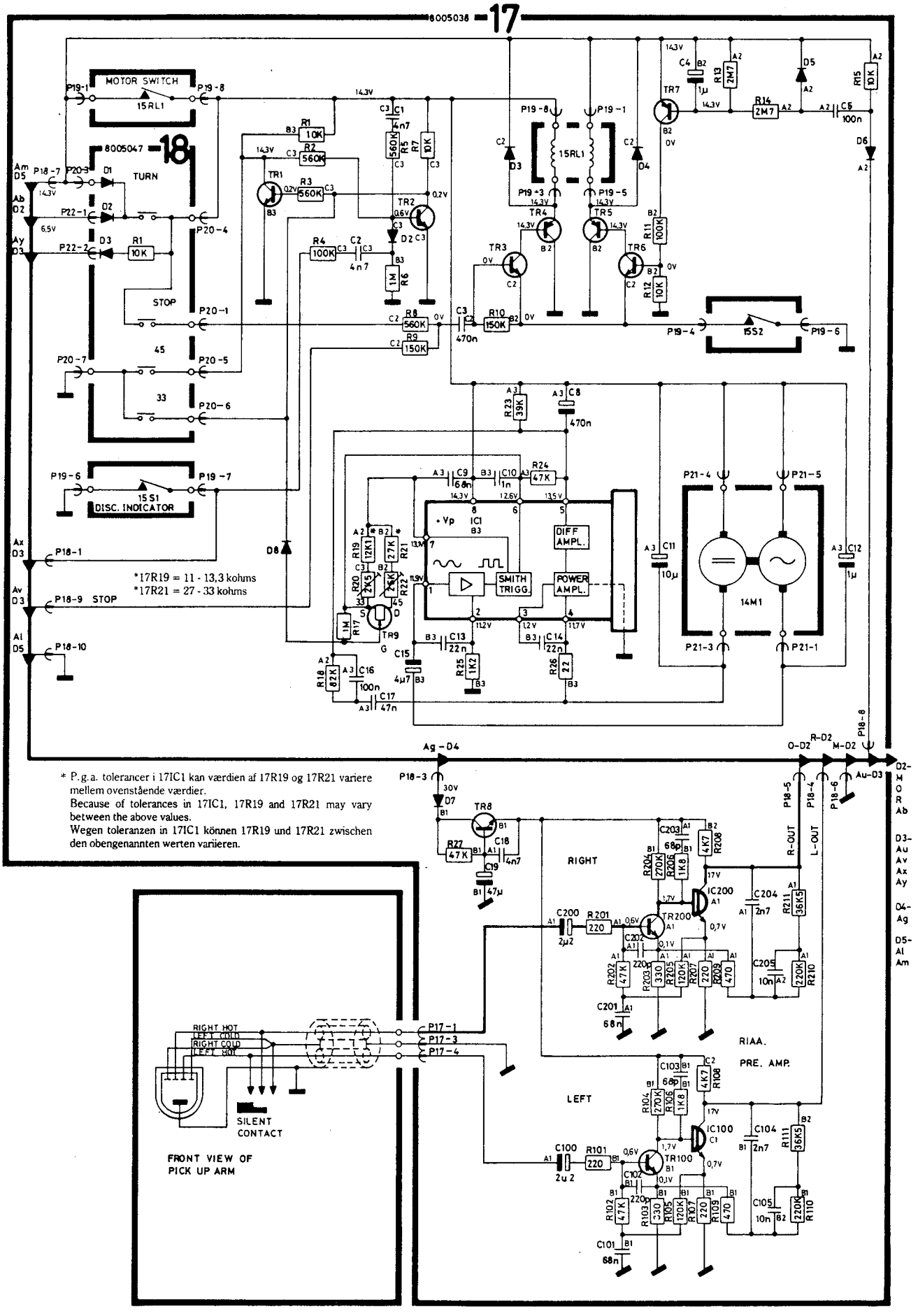
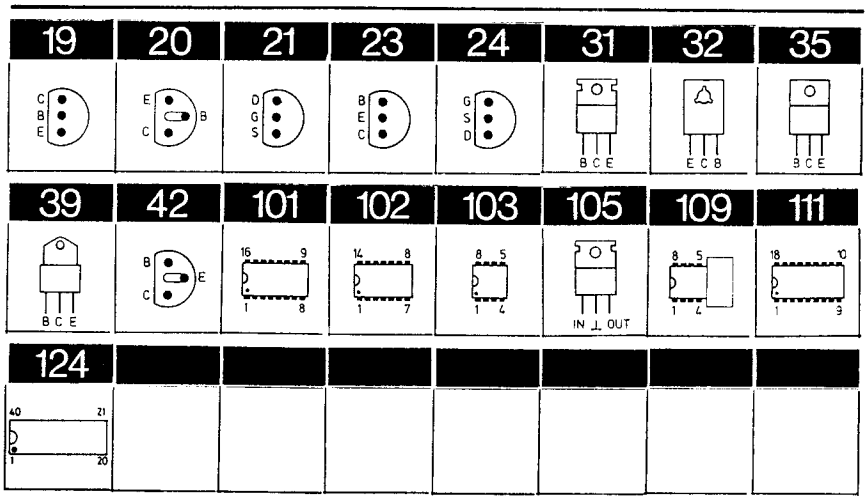

FUNCTION TABLE TAPE DECK
FUNCTION
PLUG AND PINS
REC
REC
STOP
REC WAIT
Noise reduction system manufactured under license from Dolby Laboratories Dolby and the double-D symbol are trade marks of Dolby Laboratories.
DOLBY NR
PLAYBACK AMPL R
PLAYBACK AMPL L
MOTOR CONTROL
NEGATIVE POWER SUPPLY
OSC REFERENCE VOLTAGE
INPUT TAPE
* TO BE SHORTED, WHEN PC ARE USED IN SETS WITHOUT METAL TAPE SWITCH.

DIAGRAM 6 TYPE 1802-1804



LIST OF TRANSISTORS AND IC's



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1TR1	8320136	**21**	TIS88/3C2 green
		21	SPF 2060
1TR2	8320112	**23**	BF 495
		23	BF 255
1TR3	8320119	**21**	TIS88A
1TR4			
2TR1	8320311	**42**	BF 240
2TR2	8320097	**20**	BC 547B
2TR3	8320152	**20**	BC 557B
2TR4	8302396	**24**	2N 5639
		24	MPF 4392
2TR6	8320097	**20**	BC 547B
2TR7			
2TR8			
2TR9	8320377	**20**	BC 547C
2IC1	8340033	**101**	TCA 420A
2IC2	8340168	**103**	LF 351N
2IC3	8340054	**19**	MPS A13
21C4			
2IC5	8340134	**101**	TCA 4500
3TR1	8320097	**20**	BC 547B
3TR2	8320295	**20**	BC337 -25/18
3TR3	8320152	**20**	BC 557B
3TR4	8320241	**32**	BD 138/W
3TR5	8320237	**20**	BC 546B
3TR7	8320097	**20**	BC 547B
3TR8	8320152	**20**	BC 557B
3TR100/200	8320366	**19**	MPS A16
3TR101/201	8320458	**20**	BC 550C
3TR102/202			
3TR103/203	8320097	**20**	BC 547B
3TR104/204			
3TR105/205	8320365	**19**	MPS H54
3TR106/206	8320097	**20**	BC 547B
3TR107/207	8320152	**20**	BC 557B
3TR108/208	8320097	**20**	BC 547B
3TR110/210	8320321	**19**	MPS A06
3TR111/211			
3TR112/212	8320237	**20**	BC 546B
3IC1	8340141	**103**	LM 741CN
3IC100/200	8340132	**39**	BDV 65A
3IC101/201	8340133	**39**	BDV 64A
4TR1	8320429	**32**	BD 435
4IC1	8340118	**31**	BDX 34A
		35	TEO 1089
		35	FJ 2501
4IC2	8340117	**31**	BDX 33A
		35	TEO 1088
		35	FJ 3001

4IC3	8340064	**105**	LM 340T-15
		105	µA 7815CU
		105	µA 7815UC
		105	MC 7815CT
		105	µA 7815CKC
5TR1	8320097	**20**	BC 547B
5IC1	8340188	**101**	TDA 1029
5IC2	8340187	**111**	TDA 1074
5IC3			
6TR9	8320097	**20**	BC 547B
6TR10			
11TR2	8320152	**20**	BC 557B
11TR3	8320097	**20**	BC 547B
11TR7	8320152	**20**	BC 557B
11TR8	8320237	**20**	BC 546B
11TR9			
11TR10	8320097	**20**	BC 547B
11TR12	8320152	**20**	BC 557B
11TR13	8320429	**32**	BD 435
11TR14	8320152	**20**	BC 557B
11TR15	8320097	**20**	BC 547B
11TR16	8320331	**20**	BC 328-25/18
11TR17	8320152	**20**	BC 557B
11TR20	8320097	**20**	BC 547B
11TR21	8320152	**20**	BC 557B
11TR22	8320427	**32**	BD 437
11TR23	8320152	**20**	BC 557B
11TR24	8320427	**32**	BD 437
11TR25	8320152	**20**	BC 557B
11TR26	8320428	**32**	BD 438
11TR100/200	8320152	**20**	BC 557B

11TR101/201	8320344	**20**	BC 550B
11TR102/202	8320097	**20**	BC 547B
11TR105/205			
11TR106/206			
11TR107/207	8320396	**24**	2N 5639
		24	MPF 4392
11TR108/208	8320152	**20**	BC 557B
11TR109/209	8320366	**19**	MPS A16
11IC1	8340184	**32**	BD 676
11IC101/201	8340183	**101**	LM 1011AN
11IC102/202	8340195	**103**	LF 353BN
12IC14	8004216		Hall-element
17TR1	8320108	**20**	BC 548B
17TR2			
17TR3			
17TR4	8320331	**20**	BC328-25/18
17TR5			
17TR6	8320108	**20**	BC 548B
17TR7	8320104	**20**	BC 558B
17TR8	8320097	**20**	BC 547B
17TR9	8320396	**24**	2N 5639
		24	4PF 4392
17TR100/200	8320344	**20**	BC 550B
17IC1	8340108	**109**	MHN-3P2-RDS
17IC100/200	8340054	**19**	MPS A13
		19	TPS A13
21TR1	8320331	**20**	BC 328-25/18
21TR2			
21TR3			
21TR4			
21TR5			
21TR6	8320104	**20**	BC 558B
21TR7	8320108	**20**	BC 548B
21TR10	8320368	**31**	BD 533

21TR11	8320329	**20**	BC 338/25
21TR12	8320331	**20**	BC 328-
21TR13			25/18
21TR14	8320108	**20**	BC 548B
21IC1	8340199	**101**	SN74LS42
21IC2	8340156	**101**	SN74247N
21IC3	8340054	**19**	MPS A13
		19	TPS A13
21IC4	8340104	**102**	SN 16880N
21IC5	8340200	**124**	µC 8048
21IC6	8340201	**124**	Exp. 8355
21IC7	8340192	**101**	SN 7445N

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22TR1	8320152	**20**	BC 557B
22TR2			
22TR3			
22TR4			
22TR5			
22TR6			
23TR1	8320329	**20**	BC 338/25
23TR2	8320237	**20**	BC 546B
23IC1	8340196	**101**	TDA 1046
34TR1	8320152	**20**	BC 557B
34TR2	8320097	**20**	BC 547B

LIST OF DIODES, ETC.

203	209	215	217	220			

1D1	8300041	**209**	BB 103green
1D2			
1D3	8300050	**209**	BB 103blue
1D4			
2D1	8300058	**217**	SFD 184
2D2		**215**	1N 4148
		209	1N 4148
2D3	8300056	**209**	ZTE 1.5 10%
2D4	8340190	**209**	ZTK 18
2D5	8300058	**217**	SFD 184
2D6		**215**	1N 4148
2D7		**209**	1N 4148
2D8	8340189	**209**	ZTK 11
3D1	8300297		B80C3700/ 2200
3D2	8300135	**209**	ZPD3.5V 5%
		209	BZX 79 3.3V
		209	BZX 83 3.3V
3D3	8300058	**217**	SFD 184
3D4		**215**	1N 4148
3D5		**209**	1N 4148
3D6	8300222	**209**	ZPD2.7V 5%
		209	BZX 83 2.7V
3D7	8300028	**209**	ZPD 9.1V5%
		209	BZX 79 9.1V
		209	BZX 83 9.1V
3D8	8300275		B80C5000/ 3300
3D9	8300023	**209**	1N 4002RL
3D10			
3D11	8300313	**209**	ZPD 15V 2%
		209	BZX 79 15V 2%
		209	BZX 83 15V 2%

3D12	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
3D100/200	8300029	**209**	ZPD 12 V 5%
		209	BZX 79 12V
		209	BZX 83 12V
3D101/201	8300058	**217**	SFD 184
3D102/202		**215**	1N 4148
3D103/203		**209**	1N 4148
3D104/204			
4D1	8300033	**209**	ZPD 22V 5%
		209	BZX 79 22V
		209	BZX 83 22V
5D1	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
8D2	8330022	**203**	LD 271
8D3			V-290-P
8D4			
11D1	8300029	**209**	ZPD 12V 5%
		209	BZX 79 12 V
		209	BZX 83 12 V
11D2	8300058	**217**	SFD 184
11D3		**215**	1N 4148
11D4		**209**	1N 4148
11D5			
11D6			
11D8	8300023	**209**	1N 4002RL
11D9	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
11D10	8300128	**209**	ZPD5.6V 5%
		209	BZX 79 5.6V
		209	BZX 83 5.6V
11D11	8300023	**209**	1N 4002RL
11D14	8300058	**217**	SFD 184
11D15		**215**	1N 4148
11D16		**209**	1N 4148
11D17			
11D18			

11D19	8300023	**209**	1N 4002RL
11D20			
11D21			
11D22			
11D23	8300058	**217**	1SFD 184
		215	1N 4148
		209	1N 4148
11D24	8300053	**209**	ZPD 15 5%
		209	BZX 79 15V
		209	BZX 83 15V
11D100/200	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
13D1	8300023	**209**	1N 4002RL
13D2			
17D1	8300058	**217**	SFD 184
17D2		**215**	1N 4148
17D3		**209**	1N 4148
17D4			
17D5			
17D6			
17D7			
17D8			
18D1	8300023	**209**	1N 4002RL
18D2			
18D3	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
21D1	8300058	**217**	SFD 184
21D2		**215**	1N 4148
		209	1N 4148
21D3	8300309	**209**	ZPD 4.7 2%
		209	BZX 83 4.7V 2%
		209	BZX 79 4.7V 2%

21D4	8300058	**217**	SFD 184
21D5		**215**	1N 4148
21D6		**209**	1N 4148
21D7	8330010	**220**	CQY 73 N/K
21D8			
21D9			
21D10	8330009	**220**	CQY 41 N/N
21D11			
21D12	8300058	**217**	SFD 184
21D13		**215**	1N 4148
		209	1N 4148
21DP1	8330028		FCS 8499
21DP2	8330029		FNA 8399
22D1	8300058	**217**	SFD 184
22D2		**215**	1N 4148
22D3		**209**	1N 4148
22D4			
22D5			
22D6			
22D7			
23D1	8330009	**220**	CQY 41 N/N
23D2			
23D3	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148
34D1	8330001		5075B
33D3	8300058	**217**	SFD 184
		215	1N 4148
		209	1N 4148

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LIST OF ELECTRICAL PARTS

Front End Tuner, 8050071, PC1

0T1	8020341	Aerial transformer			
R1	5001050	47 kohms ±10% 1/2W	R8	5010067	560 ohms ±5% 1/8W
R2	5010141	27 kohms ±5% 1/8W	R9	5010411	47 ohms ±5% 1/8W
R3	5010041	5.6 kohms ±5% 1/8W	R10	5001038	4.7 kohms ±10% 1/2W
R4	5001062	330 kohms ±10% 1/2W	R11	5001062	330 kohms ±10% 1/2W
R5	5001050	47 kohms ±10% 1/2W	R12	5001013	100 ohms ±10% 1/2W
R6	5001013	100 kohms ±10% 1/2W	R13	5001013	100 ohms ±10% 1/2W
R7	5010076	3.3 kohms ±5% 1/8W	R14	5001040	6.8 kohms ±10% 1/2W
C1	4010008	1 nF -20+50% 400V	C12	4010008	1 nF -20+50% 400V
C2	4010008	1 nF -20+50% 400V	C13	4010008	1 nF -20+50% 400V
C3	4010008	1 nF -20+50% 400V	C14	4030059	22 pF ±5% 250V
C4	4003012	3.3 pF ±0.25 pF 400V	C15	4010008	1 nF -20+50% 400V
C5	4330001	9 pF Cer	C16	4130091	10 nF ±20% 250V
C6	4010008	1 nF -20+50% 400V	C17	4330001	9 pF Cer
C7	4330001	9 pF Cer	C19	4000020	4.7 pF 63V
C8	4200107	10µF 10V	C20	4330001	9 pF Cer
C9	4010015	8.2 pF ±0,25 pF 63V	C21	4101031	270 pF 5% 63V
C10	4003130	47 pF ±2% 63V	C22	4010008	1 nF -20+50% 400V
C11	4010008	1 nF -20+50% 400V	C23	4101007	220 pF 5% 63V
L1	8020121	RF (prim.)	L6	8020183	Osc.
L2	8020122	RF (Sec.)	L7	8020124	10.7 MHz
L3	6830052	3.8µH±5%	L8	8020137	10.7 MHz
L4	6830052	3.8µH±5%	L9	6830052	3.8µH±5%
L5	6710001	Ferrit tube 3x1.2x3.5 mm	L10	8020304	Aerial coil.
	6702001	Ferrit-core F100 (white)			
	6702008	Ferrit-core F10 (red)			
	6479001	Glassbushing			

FM, 8002354, PC2

R1	5010046	12 kohms ±5% 1/8W	R37	5010049	100 kohms ±5% 1/8W
R2	5010048	4.7 kohms ±5% 1/8W	R39	5010057	150 ohms ±5% 1/8W
R3	5010058	470 ohms ±5% 1/8W	R40	5010057	150 ohms ±5% 1/8W
R4	5010044	330 ohms ±5% 1/8W	R41	5010067	560 ohms ±5% 1/8W
R5	5010044	330 ohms ±5% 1/8W	R45	5010448	22 ohms ±5% 1/8W
R6	5010044	330 ohms ±5% 1/8W	R46	5010040	1 kohms ±5% 1/8W
R7	5010077	470 kohms ±5% 1/8W	R47	5010059	10 kohms ±5% 1/8W
R8	5010079	22 kohms ±5% 1/8W	R48	5370058	5 kohms ±20%
R9	5010059	10 kohms ±5% 1/8W	R49	5370074	10 kohms ±20%
R10	5010070	390 ohms ±5% 1/8W	R52	5010120	220 kohms ±5% 1/8W
R11	5010048	4.7 kohms ±5% 1/8W	R53	5010059	10 kohms ±5% 1/8W
R12	5010059	10 kohms ±5% 1/8W	R54	5010059	10 kohms ±5% 1/8W
R15	5010069	3.9 kohms ±5% 1/8W	R55	5010059	10 kohms ±5% 1/8W
R16	5010065	100 ohms ±5% 1/8W	R56	5010045	47 kohms ±5% 1/8W
R17	5010065	100 ohms ±5% 1/8W	R57	5010061	56 kohms ±5% 1/8W
R18	5370074	10 kohms ±20%	R58	5010061	56 kohms ±5% 1/8W
R19	5010069	3.9 kohms ±5% 1/8W	R59	5010061	56 kohms ±5% 1/8W
R20	5010091	82 kohms ±5% 1/8W	R60	5010733	5.1 kohms ±5% 1/8W
R21	5370128	100 kohms ±20%	R61	5010061	56 kohms ±5% 1/8W
R25	5010144	680 ohms ±5% 1/8W	R62	5010733	5.1 kohms ±5% 1/8W
R26	5010072	180 kohms ±5% 1/8W	R63	5370128	100 kohms ±20%
R27	5370074	10 kohms ±20%	R64	5010060	39 kohms ±5% 1/8W
R28	5010059	10 kohms ±5% 1/8W	R65	5370128	100 kohms ±20%
R29	5010072	180 kohms ±5% 1/8W	R66	5010060	39 kohms ±5% 1/8W
R30	5010056	82 ohms ±5% 1/8W	R68	5010120	220 kohms ±5% 1/8W
R31	5010054	1 Mohms ±5% 1/8W	R69	5010049	100 kohms ±5% 1/8W
R32	5010045	47 kohms ±5% 1/8W	R70	5010054	1 Mohms ±5% 1/8W
R33	5010045	47 kohms ±5% 1/8W	R71	5010117	330 kohms ±5% 1/8W
R34	5010045	47 kohms ±5% 1/8W	R72	5010054	1 Mohms ±5% 1/8W
R35	5010045	47 kohms ±5% 1/8W	R73	5010120	220 kohms ±5% 1/8W
R36	5010049	100 kohms ±5% 1/8W	R74	5010049	100 kohms ±5% 1/8W
C2	4010060	22 nF -20+80% 40V	C15	4003128	100 pF ±5% 63V
C3	4010027	1 nF ±20% 100V	C16	4003125	33 pF ±2% 63V
C4	4130110	33 nF ±20% 250V	C21	4201061	4.7µF 63V
C5	4010041	100 nF -20+80% 40V	C22	4201061	4.7µF 63V
C6	4010060	22 nF -20+80% 40V	C23	4130104	220 nF ±20% 100V
C7	4010060	22 nF -20+80% 40V	C25	4130114	470 nF ±10% 100V
C8	4130078	47 nF ±20% 250V	C26	4130104	220 nF ±20% 100V
C9	4130150	100 nF ±20% 100V	C27	4101007	220 pF ±5% 63V
C12	4010041	10 nF -20+80% 40V	C28	4200099	100µF 16V
C13	4003125	33 pF ±2% 63V	C29	4200298	1µF 63V
C14	4000094	150 pF ±5% 63V	C30	4130050	68 nF 250V

C31	4130104	220 nF ±20% 100V	C39	4101019	1 nF ±5% 63V
C32	4010126	4.7 nF ±5% 63V	C40	4101019	1 nF ±5% 63V
C33	4010126	4.7 nF ±5% 63V	C41	4100081	2.15 nF ±2.5% 63V
C35	4200101	10µF ±16V	C42	4100081	2.15 nF ±2.5% 63V
C36	4201061	4.7µF ±63V	C43	4100081	2.15 nF ±2.5% 63V
C37	4201035	2.2µF -10+50% 63V	C44	4100081	2.15 nF ±2.5% 63V
C38	4201035	2.2µF -10+50% 63V			

L1	8020318	1.47µH	BP1	8030012	10.7 MHz
L2	8022100	31 mH	BP2	8030012	10.7 MHz
L3	8022100	31 mH			
	6702045	Ferrit-core F10			

P8	7220117	Plug 12/11 pins		3304019	Screen/housing

Power Supply and Output Ampl. 8002358, PC3

R1	5010040	1 kohms ±5% 1/8W	R203	5010067	560 ohms ±5% 1/8W
R2	5010070	390 ohms ±5% 1/8W	R204	5010403	27 ohms ±5% 1/8W
R3	5010000	270 ohms ±5% 1/8W	R205	5010100	270 ohms ±5% 1/8W
R4	5010144	680 ohms ±5% 1/8W	R206	5010797	390 ohms ±2% 1/8W
R5	5010040	1 kohms ±5% 1/8W	R207	5010059	10 kohms ±5% 1/8W
R6	5010059	10 kohms ±5% 1/8W	R208	5010776	10 kohms ±2% 1/8W
R8	5001020	270 ohms ±10% 1/2W	R209	5010053	15 kohms ±5% 1/8W
R9	5010019	220 ohms ±10% 1/2W	R210	5010036	3.3 kohms ±10% 1/2W
R11	5010058	470 ohms ±5% 1/8W	R211	5010000	270 ohms ±5% 1/8W
R12	5370174	250 ohms ±20%	R212	5010611	150 ohms ±5% 1/8W
R14	5010040	1 kohms ±5% 1/8W	R213	5010039	68 ohms ±5% 1/8W
R15	5010049	100 kohms ±5% 1/8W	R214	5010053	15 kohms ±5% 1/8W
R16	5010040	1 kohms ±5% 1/8W	R215	5010039	68 ohms ±5% 1/8W
R17	5010064	2.2 kohms ±5% 1/8W	R216	5010041	8.2 kohms ±10% 1/2W
R19	5010049	100 kohms ±5% 1/8W	R217	5010041	8.2 kohms ±10% 1/2W
R20	5010135	2.7 kohms ±10% 1/2W	R218	5010144	680 ohms ±5% 1/8W
R22	5010060	39 kohms ±5% 1/8W	R219	5010000	270 ohms ±5% 1/8W
R23	5010052	6.8 kohms ±5% 1/8W	R220	5010000	270 ohms ±5% 1/8W
R25	5010506	10 ohms ±5% 1/8W	R221	5010065	100 ohms ±5% 1/8W
R26	5010506	10 ohms ±5% 1/8W	R222	5010411	470 ohms ±5% 1/8W
R27	5002028	2.2 kohms ±10% 1W	R223	5010000	270 ohms ±5% 1/8W
R28	5010766	10 kohms ±2% 1/8W	R224	5370174	250 ohms ±20%
R29	5010766	10 kohms ±2% 1/8W	R225	5010065	100 ohms ±5% 1/8W
R30	5010069	3.9 kohms ±5% 1/8W	R226	5100166	0.39 ohms ±10% 2W
R31	5010076	3.3 kohms ±5% 1/8W	R227	5100166	0.39 ohms ±10% 2W
R32	5010047	120 kohms ±5% 1/8W	R230	5010175	33 kohms ±5% 1/8W
R33	5010059	10 kohms ±5% 1/8W	R231	5000085	4.7 ohms ±10% 1/2W
R34	5010060	39 kohms ±5% 1/8W	R232	5001076	3.9 Mohms ±10% 1/2W
R35	5010059	10 kohms ±5% 1/8W	R233	5010047	120 kohms ±5% 1/8W
R200	5010766	10 kohms ±2% 1/8W	R234	5010059	10 kohms ±5% 1/8W
R201	5010048	4.7 kohms ±5% 1/8W	R235	5001019	220 ohms ±10% 1/2W
R202	5010766	10 kohms ±2% 1/8W	R236	5010798	39 kohms ±2% 1/8W

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C1	4130150	100 nF ±20% 100V	C19	4000077	47 pF ±2% 63V
C2	4130150	100 nF ±20% 100V	C20	4010063	4.7 nF ±10% 63V
C3	4130150	100 nF ±20% 100V	C200	4201060	100µF 40V
C4	4200402	5000 µF 35V	C201	4130087	47 nF ±10% 250V
C5	4010060	22 nF -20+80% 40V	C202	4010029	180 pF ±10% 100V
C6	4200101	10µF ±20% 16V	C203	4000077	47 pF ±2% 63V
C7	4200230	15µF ±20% 16V	C204	4000016	10 pF ±2%
C10	4130150	100 nF ±20% 100V	C205	4200098	100 µF 10V
C11	4130150	100 nF ±20% 100V	C206	4010063	4.7 nF ±10% 63V
C12	4130106	330 nF ±20% 100V	C207	4130114	470 nF ±10% 100V
C13	4130106	330 nF ±20% 100V	C208	4010063	4.7 nF ±10% 63V
C14	4130106	330 nF ±20% 100V	C209	4130104	220 nF ±20% 100V
C15	4200415	47µF -10+100% 40V	C210	4130104	220 nF ±20% 100V
C16	4200368	100µF 63V	C211	4130104	220 nF ±20% 100V
C17	4200402	5000µF 35V	C212	4200411	47µF -10+100% 6.3V
C18	4200402	5000µF 35V	C213	4010060	22 nF -20+80% 40V

F1	6600010	4A-T 250V S IEC 127	P9	7220195	Plug 2/2 pins
F2	6600006	1A-T 250V SIEC 127	P10	7220196	Plug 4/3 pins
			P11	7220142	Plug 19/18 pins

L200	6850114	0.5µH	RL1	7600040	
	7500013	Contact pin			

Power Supply, 8002413, PC4

R1	5010468	15 ohms ±5% 1/8W

C1	4200100	22µF 40V
C2	4010063	4.7 nF ±10% 63V
C3	4130171	330 nF ±20% 63V

Vol. and Tone Control, 8002356, PC5

R1	5010075	33 kohms ±5% 1/8W	R61	5010160	39 kohms ±5% 1/8W
R2	5010077	470 kohms ±5% 1/8W	R62	5010060	39 kohms ±5% 1/8W
R3	5010075	33 kohms ±5% 1/8W	R63	5010060	39 kohms ±5% 1/8W
R4	5010077	470 kohms ±5% 1/8W	R64	5010060	39 kohms ±5% 1/8W
R5	5010075	33 kohms ±5% 1/8W	R65	5010046	12 kohms ±5% 1/8W
R6	5010077	470 kohms ±5% 1/8W	R66	5010046	12 kohms ±5% 1/8W
R7	5010075	33 kohms ±5% 1/8W	R67	5010061	56 kohms ±5% 1/8W
R8	5010077	470 kohms ±5% 1/8W	R68	5010061	56 kohms ±5% 1/8W
R9	5010120	220 kohms ±5% 1/8W	R69	5010046	12 kohms ±5% 1/8W
R10	5010063	150 kohms ±5% 1/8W	R70	5010046	12 kohms ±5% 1/8W
R11	5010075	33 kohms ±5% 1/8W	R72	5010040	1 kohms ±5% 1/8W
R12	5010077	470 kohms ±5% 1/8W	R73	5010040	1 kohms ±5% 1/8W
R13	5010075	33 kohms ±5% 1/8W	R74	5010247	1.5 kohms ±5% 1/8W
R14	5010077	470 kohms ±5% 1/8W	R75	5010247	1.5 kohms ±5% 1/8W
R30	5010059	10 kohms ±5% 1/8W	R76	5010041	27 kohms ±5% 1/8W
R31	5010059	10 kohms ±5% 1/8W	R77	5010076	3.3 kohms ±5% 1/8W
R32	5010091	82 kohms ±5% 1/8W	R78	5020074	15 kohms ±1% 1/8W
R33	5010091	82 kohms ±5% 1/8W	R79	5020144	30.1 kohms ±1% 1/8W
R34	5010059	10 kohms ±5% 1/8W	R80	5020097	60.4 kohms ±1% 1/8W
R35	5010075	33 kohms ±5% 1/8W	R81	5010047	120 kohms ±5% 1/8W
R36	5010075	33 kohms ±5% 1/8W	R82	5010079	22 kohms ±5% 1/8W
R37	5010060	39 kohms ±5% 1/8W	R83	5010059	10 kohms ±5% 1/8W
R38	5370074	10 kohms ±20%	R84	5010615	100 kohms ±5% 1/8W
R39	5010135	18 kohms ±5% 1/8W	R85	5010615	100 kohms ±5% 1/8W
R40	5010060	39 kohms ±5% 1/8W	R86	5010253	33 ohms ±5% 1/8W
R41	5370074	10 kohms ±20%	R87	5010053	15 kohms ±5% 1/8W
R42	5010135	18 kohms ±5% 1/8W	R90	5010059	10 kohms ±5% 1/8W
R43	5010060	39 kohms ±5% 1/8W	R91	5010052	6.8 kohms ±5% 1/8W
R44	5010058	470 ohms ±5% 1/8W	R92	5010091	82 kohms ±5% 1/8W
R45	5010058	470 ohms ±5% 1/8W	R93	5010059	10 kohms ±5% 1/8W
R46	5010060	39 kohms ±5% 1/8W	R94	5010091	82 kohms ±5% 1/8W
R47	5010040	1 kohms ±5% 1/8W	R95	5010045	47 kohms ±5% 1/8W
R48	5010040	1 kohms ±5% 1/8W	R96	5010091	82 kohms ±5% 1/8W
R49	5010059	10 kohms ±5% 1/8W	R97	5010059	10 kohms ±5% 1/8W
R50	5010059	10 kohms ±5% 1/8W	R98	5010059	10 kohms ±5% 1/8W
R51	5010253	33 ohms ±5% 1/8W	R99	5010091	82 kohms ±5% 1/8W
R52	5010053	15 kohms ±5% 1/8W	R100	5010045	47 kohms ±5% 1/8W
R53	5010060	39 kohms ±5% 1/8W	R101	5010091	82 kohms ±5% 1/8W
R54	5010060	39 kohms ±5% 1/8W	R102	5010059	10 kohms ±5% 1/8W
R55	5010154	8.2 kohms ±5% 1/8W	R103	5010091	82 kohms ±5% 1/8W
R56	5010154	8.2 kohms ±5% 1/8W	R104	5010059	10 kohms ±5% 1/8W
R57	5010060	39 kohms ±5% 1/8W	R105	5010052	6.8 kohms ±5% 1/8W
R58	5010060	39 kohms ±5% 1/8W	R106	5010040	1 kohms ±5% 1/8W
R59	5010154	8.2 kohms ±5% 1/8W	R107	5010040	1 kohms ±5% 1/8W
R60	5010154	8.2 kohms ±5% 1/8W			

C1	4130150	100 nF ±20% 100V	C31	4200107	10µF ±20% 100V
C2	4130150	100 nF ±20% 100V	C32	4200342	10µF -10+50% 63V
C3	4130150	100 nF ±20% 100V	C33	4200342	10µF -10+50% 63V
C4	4130150	100 nF ±20% 100V	C35	4010067	1.5 nF ±10% 63V
C5	4010063	4.7 nF ±10% 63V	C36	4010067	1.5 nF ±10% 63V
C6	4130150	100 nF ±20% 100V	C37	4010067	1.5 nF ±10% 63V
C7	4130150	100 nF ±20% 100V	C38	4010067	1.5 nF ±10% 63V
C8	4200403	100µF ±25V	C39	4200342	10µF -10+50% 63V
C9	4003128	100 pF ±5% 63V	C40	4130088	33 nF ±10% 250V
C10	4003128	100 pF ±5% 63V	C41	4200342	10µF -10+50% 63V
C11	4003128	100 pF ±5% 63V	C42	4130088	33 nF ±10% 250V
C12	4003128	100 pF ±5% 63V	C43	4200092	47µF 16V
C13	4010062	330 pF ±10% 100V	C44	4200092	47µF 16V
C14	4003128	100 pF ±5% 63V	C45	4200092	47µF 16V
C15	4003128	100 pF ±5% 63V	C46	4200403	100µF 25V
C25	4200342	10µF -10+50% 63V	C47	4200342	10µF -10+50% 63V
C26	4200342	10µF -10+50% 63V	C48	4200342	10µF -10+50% 63V
C27	4200403	100µF 25V	C49	4010067	1.5 nF ±10% 63V
C28	4200092	47µF 16V	C50	4130088	33 nF ±10% 250V
C29	4200092	47µF 16V	C51	4010067	1.5 nF ±10% 63V
C30	4200092	47µF 16V	C52	4130088	33 nF ±10% 250V

P12	7220122	Plug 4/3 pins	P14	7220140	Plug 16/15 pins
P13	7220117	Plug 12/11 pins	P15	7220151	Plug 15/14 pins
	7400195	Switch (Loudn.)			

Remote, 8002444, PC6

R30	5010058	470 ohms ±5% 1/8W	R34	5010075	33 kohms ±5% 1/8W
R31	5010120	220 kohms ±5% 1/8W	R35	5010075	33 kohms ±5% 1/8W
R32	5010120	220 kohms ±5% 1/8W	R36	5010070	390 ohms ±5% 1/8W
R33	5010092	220 ohms ±5% 1/8W	R37	5010154	8.2 kohms ±5% 1/8W
C18	4201069	22µF ±20% 35V	P25	7220166	Plug 3/3 pins
C19	4200420	2.2µF -10+50% 63V	P26	7220193	Plug 9/9 pins
C20	4200420	2.2µF -10+50% 63V			
	7210159	Socket 5 pol.			
	7210205	Socket Jack			

Tape, 8004210, PC11

R1	5010049	100 kohms ±5% 1/8W	R54	5010040	1 kohms ±5% 1/8W
R3	5010040	1 kohms ±5% 1/8W	R55	5010049	100 kohms ±5% 1/8W
R4	5010154	8.2 kohms ±5% 1/8W	R56	5010092	220 ohms ±5% 1/8W
R5	5010040	1 kohms ±5% 1/8W	R57	5001032	1.5 kohms ±10% 1/2W
R6	5010073	390 kohms ±5% 1/8W	R58	5001032	1.5 kohms ±10% 1/2W
R8	5010072	180 kohms ±5% 1/8W	R59	5010151	56 ohms ±5% 1/8W
R9	5010049	100 kohms ±5% 1/8W	R60	5010057	150 ohms ±5% 1/8W
R10	5370156	250 kohms ±20%	R61	5010742	47 ohms ±5% 1/8W
R11	5370128	100 kohms ±20%	R62	5010742	47 ohms ±5% 1/8W
R12	5010120	220 kohms ±5% 1/8W	R201	5010054	1 Mohms ±5% 1/8W
R13	5010040	1 kohms ±5% 1/8W	R202	5010151	56 ohms ±5% 1/8W
R14	5010506	10 ohms ±5% 1/8W	R203	5010052	6.8 kohms ±5% 1/8W
R15	5010059	10 kohms ±5% 1/8W	R204	5010040	1 kohms ±5% 1/8W
R16	5010054	1 Mohms ±5% 1/8W	R205	5010151	56 ohms ±5% 1/8W
R17	5010059	10 kohms ±5% 1/8W	R206	5010056	82 ohms ±5% 1/8W
R18	5010044	330 ohms ±5% 1/8W	R207	5010048	4.7 kohms ±5% 1/8W
R19	5010044	330 ohms ±5% 1/8W	R208	5010041	5.6 kohms ±5% 1/8W
R20	5010141	27 kohms ±5% 1/8W	R209	5010047	120 kohms ±5% 1/8W
R21	5010079	22 kohms ±5% 1/8W	R210	5010062	68 kohms ±5% 1/8W
R25	5010049	100 kohms ±5% 1/8W	R211	5010064	2.2 kohms ±5% 1/8W
R26	5010069	3.9 kohms ±5% 1/8W	R212	5010076	3.3 kohms ±5% 1/8W
R27	5010053	15 kohms ±5% 1/8W	R215	5010047	120 kohms ±5% 1/8W
R28	5010053	15 kohms ±5% 1/8W	R216	5010069	3.9 kohms ±5% 1/8W
R29	5010000	270 ohms ±5% 1/8W	R217	5010048	4.7 kohms ±5% 1/8W
R30	5010298	2.7 kohms ±5% 1/8W	R218	5010059	10 kohms ±5% 1/8W
R31	5010054	1 Mohms ±5% 1/8W	R219	5370061	50 kohms ±20%
R32	5010062	68 kohms ±5% 1/8W	R220	5010059	10 kohms ±5% 1/8W
R33	5010049	100 kohms ±5% 1/8W	R225	5010265	3.3 kohms ±2% 1/4W
R34	5010053	15 kohms ±5% 1/8W	R226	5010362	180 ohms ±5% 1/8W
R35	5010040	1 kohms ±5% 1/8W	R227	5010048	4.7 kohms ±5% 1/8W
R36	5010054	1 Mohms ±5% 1/8W	R228	5010083	270 kohms ±5% 1/8W
R37	5010298	2.7 kohms ±5% 1/8W	R229	5010071	560 kohms ±5% 1/8W
R38	5010054	1 Mohms ±5% 1/8W	R230	5010083	270 kohms ±5% 1/8W
R39	5010041	5.6 kohms ±5% 1/8W	R235	5010052	6.8 kohms ±5% 1/8W
R40	5010041	5.6 kohms ±5% 1/8W	R236	5010141	27 kohms ±5% 1/8W
R41	5010298	2.7 kohms ±5% 1/8W	R237	5010064	2.2 kohms ±5% 1/8W
R42	5010041	5.6 kohms ±5% 1/8W	R238	5010064	2.2 kohms ±5% 1/8W
R43	5010064	2.2 kohms ±5% 1/8W	R239	5010153	1.2 kohms ±5% 1/8W
R44	5010057	150 ohms ±5% 1/8W	R240	5010065	100 ohms ±5% 1/8W
R45	5010040	1 kohms ±5% 1/8W	R241	5010053	15 kohms ±5% 1/8W
R46	5010041	5.6 kohms ±5% 1/8W	R243	5010045	47 kohms ±5% 1/8W
R47	5010041	5.6 kohms ±5% 1/8W	R244	5010247	1.5 kohms ±5% 1/8W
R48	5010298	2.7 kohms ±5% 1/8W	R245	5020095	13.3 kohms ±5% 1/8W
R49	5010049	100 kohms ±5% 1/8W	R246	5010064	2.2 kohms ±5% 1/8W
R50	5010054	1 Mohms ±5% 1/8W	R247	5370173	25 kohms ±20%
R51	5010245	2.2 Mohms ±5% 1/8W	R249	5010135	18 kohms ±5% 1/8W
R52	5010064	2.2 kohms ±5% 1/8W	R250	5010075	33 kohms ±5% 1/8W
R53	5010057	150 ohms ±5% 1/8W	R251	5010117	330 kohms ±5% 1/8W
C1	4130106	330 nF ±20% 100V	C10	4130144	470 nF ±10% 100V
C3	4340003	65 pF	C11	4201061	4.7µF 63V
C5	4340003	65 pF	C12	4200097	220µF 16V
C6	4100141	2.7 nF ±5% 630V	C13	4030015	47 nF -20+80% 16V
C7	4010041	10 nF -20+80% 40V	C15	4201065	10µF 63V
C8	4130110	33 nF ±20% 250V	C16	4130087	47 nF ±10% 250V
C9	4130114	470 nF ±10% 100V	C17	4200108	4.7µF ±20% 25V

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C18	4200299	220µF 40V	C213	4130166	27 nF ±5% 250V
C19	4030015	47 nF -20+80% 16V	C214	4010027	1 nF ±10% 100V
C22	4010027	1 nF ±10% 100V	C215	4100049	56 nF ±1% 63V
C23	4010027	1 nF ±10% 100V	C216	4200342	10µF -10%+50% 63V
C24	4010027	1 nF ±10% 100V	C217	4100059	4.7 nF ±2,5% 63V
C200	4010021	220 pF ±10% 100V	C218	4200342	10µF -10+50% 63V
C201	4130107	100 nF ±10% 250V	C219	4130087	47 nF ±10% 250V
C202	4200097	220µF 16V	C220	4201061	10µF ±2,5% 63V
C203	4130089	22 nF ±10% 250V	C221	4130107	100 nF ±10% 250V
C205	4201035	2.2µF -10+50% 63V	C222	4130106	330 nF ±20% 100V
C206	4130109	10 nF ±10% 250V	C225	4200322	4.7µF -10+50% 63V
C207	4201035	2.2µF -10+50% 63V	C226	4130107	100 nF ±10% 250V
C210	4100059	4.7 nF ±2,5% 63V	C227	4130104	220 nF ±20% 100V
C211	4101019	1 nF ±5% 63V	C228	4130166	27 nF ±5% 250V
C212	4100076	2.7 nF ±2.5% 630V	C232	4010021	220 pF ±10% 100V

L1	8020338	OSC	L202	8022059	2.7 mH
L200	8022102	24 mH	L203	8022111	10 mH
L201	8022103	37 mH			

RL1	7600050	Relay 6V	RL2	7600050	Relay 6V

P1	7220139	Plug 11/10 pins		7500053	Contact pin
P2	7220183	Plug 17/16 pins		3304050	Screen/housing
P3	7220197	Plug 21/20 pins		3358137	Køleplade
P4	7220122	Plug 4/3 pins		0593070	Solde tag
P5	7220128	Plug 6/5 pins			
P43	7220122	Plug 4/3 pins			

Phone, 8005038, PC17

R1	5011044	10 kohms ±5% 1/4W	R21	5010141	27 kohms ±5% 1/8W
R2	5010071	560 kohms ±5% 1/8W	R22	5370068	25 kohms ±20%
R3	5010071	560 kohms ±5% 1/8W	R23	5010060	39 kohms ±5% 1/8W
R4	5010049	100 kohms ±5% 1/8W	R24	5010045	47 kohms ±5% 1/8W
R5	5010071	560 kohms ±5% 1/8W	R25	5010153	1.2 kohms ±5% 1/8W
R6	5010054	1 Mohms ±5% 1/8W	R26	5010777	22 ohms ±10% 0.7W
R7	5010059	10 kohms ±5% 1/8W	R27	5010045	47 kohms ±5% 1/8W
R8	5010071	560 kohms ±5% 1/8W	R201	5010092	220 ohms ±5% 1/8W
R9	5010063	150 kohms ±5% 1/8W	R202	5010045	47 kohms ±5% 1/8W
R10	5010063	150 kohms ±5% 1/8W	R203	5010044	330 ohms ±5% 1/8W
R11	5010049	100 kohms ±5% 1/8W	R204	5010083	270 kohms ±5% 1/8W
R12	5010059	10 kohms ±5% 1/8W	R205	5010047	120 kohms ±5% 1/8W
R13	5010431	2.7 Mohms ±5% 1/8W	R206	5010066	1.8 kohms ±5% 1/8W
R14	5010431	2.7 Mohms ±5% 1/8W	R207	5010092	220 ohms ±5% 1/8W
R15	5010059	10 kohms ±5% 1/8W	R208	5010048	4.7 kohms ±5% 1/8W
R17	5010054	1 Mohms ±5% 1/8W	R209	5010058	470 ohms ±5% 1/8W
R18	5010091	82 kohms ±5% 1/8W	R210	5010120	220 kohms ±5% 1/8W
R19	5020139	12.1 kohms ±1% 1/8W	R211	5020019	36.5 kohms ±5% 1/8W
R20	5370173	2.5 kohms ±20%			

C1	4011022	4.7 nF -20+80% 40V	C15	4200322	4.7µF -10+50% 63V
C2	4011022	4.7 nF -20+80% 40V	C16	4130103	100 nF ±20% 250V
C3	4130114	470 nF ±10% 100V	C17	4130078	47 nF ±20% 250V
C4	4201057	1µF 35V	C18	4011022	4.7 nF -20+80% 40V
C5	4130103	100 nF ±20% 250V	C19	4201074	47µF 40V
C8	4201058	0.47µF 35V	C200	4201069	2.2µF ±20% 35V
C9	4100098	68 nF ±2.5% 63V	C201	4130100	68 nF ±10% 250V
C10	4110027	1 nF ±10% 100V	C202	4000029	220 pF ±5% 63V
C11	4200432	10µF -10+50% 63V	C203	4000019	68 pF ±5% 63V
C12	4201057	1µF 35V	C204	4010065	2.7 nF ±10% 63V
C13	4010060	22 nF -20+80% 40V	C205	4130109	10 nF ±10% 250V
C14	4010060	22 nF -20+80% 40V			

P17	7220131	Plug 4/3 pins	RL1	6810007	Reed-relay coil
P18	7220182	Plug 10/9 pins		7500013	Contact pin
P19	7220130	Plug 8/7 pins			
P20	7220181	Plug 7/6 pins			
P21	7220160	Plug 5/4 pins			
P22	7220195	Plug 2/2 pins			

Phono Keyboard, 8005047, PC18

R1	5010059	10 kohms ±5% 1/8W	P22	7220129	Plug 2/2 pins

Microcomputer and Display, 802442, PC21

R1	5010053	1.2 kohms ±5% 1/8W	R45	5010067	560 ohms ±5% 1/8W
R2	5010053	1.2 kohms ±5% 1/8W	R50	5010044	330 ohms ±5% 1/8W
R3	5010053	1.2 kohms ±5% 1/8W	R51	5010253	33 ohms ±5% 1/8W
R4	5010053	1.2 kohms ±5% 1/8W	R52	5010048	4.7 kohms ±5% 1/8W
R5	5010053	1.2 kohms ±5% 1/8W	R53	5010048	4.7 kohms ±5% 1/8W
R6	5010058	470 ohms ±5% 1/8W	R54	5010076	3.3 kohms ±5% 1/8W
R7	5010044	330 ohms ±5% 1/8W	R55	5010076	3.3 kohms ±5% 1/8W
R8	5010058	470 ohms ±5% 1/8W	R56	5010059	10 kohms ±5% 1/8W
R9	5010044	330 ohms ±5% 1/8W	R57	5010059	10 kohms ±5% 1/8W
R10	5010058	470 ohms ±5% 1/8W	R59	5010049	100 kohms ±5% 1/8W
R11	5010044	330 ohms ±5% 1/8W	R60	5010362	180 ohms ±5% 1/8W
R12	5010058	470 ohms ±5% 1/8W	R61	5010362	180 ohms ±5% 1/8W
R13	5010044	330 ohms ±5% 1/8W	R62	5010362	180 ohms ±5% 1/8W
R14	5010058	470 ohms ±5% 1/8W	R63	5010362	180 ohms ±5% 1/8W
R15	5010044	330 ohms ±5% 1/8W	R64	5010362	180 ohms ±5% 1/8W
R16	5010070	390 ohms ±5% 1/8W	R65	5010758	1.8 kohms ±2% 1/8W
R17	5010048	4.7 kohms ±5% 1/8W	R66	5010758	1.8 kohms ±2% 1/8W
R18	5010048	4.7 kohms ±5% 1/8W	R69	5010065	100 ohms ±5% 1/8W
R19	5010048	4.7 kohms ±5% 1/8W	R70	5010040	1 kohms ±5% 1/8W
R24	5010059	10 kohms ±5% 1/8W	R71	5010040	1 kohms ±5% 1/8W
R25	5010058	470 ohms ±5% 1/8W	R72	5010040	1 kohms ±5% 1/8W
R26	5010058	470 ohms ±5% 1/8W	R73	5010040	1 kohms ±5% 1/8W
R27	5010058	470 ohms ±5% 1/8W	R74	5010040	1 kohms ±5% 1/8W
R28	5010058	470 ohms ±5% 1/8W	R75	5010049	100 kohms ±5% 1/8W
R29	5010058	470 ohms ±5% 1/8W	R76	5010059	10 kohms ±5% 1/8W
R30	5010058	470 ohms ±5% 1/8W	R77	5010079	22 kohms ±5% 1/8W
R31	5010058	470 ohms ±5% 1/8W	R78	5010040	1 kohms ±5% 1/8W
R32	5010077	470 kohms ±5% 1/8W	R80	5010040	1 kohms ±5% 1/8W
R33	5010077	470 kohms ±5% 1/8W	R81	5010040	1 kohms ±5% 1/8W
R34	5010065	100 ohms ±5% 1/8W	R82	5010040	1 kohms ±5% 1/8W
R35	5010065	100 ohms ±5% 1/8W	R83	5010040	1 kohms ±5% 1/8W
R36	5010065	100 ohms ±5% 1/8W	R84	5010040	1 kohms ±5% 1/8W
R37	5010065	100 ohms ±5% 1/8W	R85	5010040	1 kohms ±5% 1/8W
R38	5010065	100 ohms ±5% 1/8W	R86	5010040	1 kohms ±5% 1/8W
R39	5010065	100 ohms ±5% 1/8W	R87	5010040	1 kohms ±5% 1/8W
R40	5010065	100 ohms ±5% 1/8W	R88	5010040	1 kohms ±5% 1/8W
R41	5010065	100 ohms ±5% 1/8W	R89	5010247	1.5 kohms ±5% 1/8W
R42	5010056	82 ohms ±5% 1/8W	R90	5010298	2.7 kohms ±5% 1/8W
R43	5010067	560 ohms ±5% 1/8W	R91	5010069	3.9 kohms ±5% 1/8W
R44	5010067	560 ohms ±5% 1/8W	R92	5010079	32 kohms ±5% 1/8W

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C1	4010083	10 nF -20+80% 40V	C26	4010031	680 pF ±10% 100V
C2	4010083	10 nF -20+80% 40V	C27	4010031	680 pF ±10% 100V
C3	4010083	10 nF -20+80% 40V	C28	4010060	22 nF -20+80% 40V
C4	4010083	10 nF -20+80% 40V	C29	4010060	22 nF -20+80% 40V
C5	4010083	10 nF -20+80% 40V	C32	4000020	4.7 pF ±0.25 pF
C6	4010041	10 nF -20+80% 40V	C33	4000026	22 pF ±2% 63V
C7	4130171	330 nF ±20% 63V	C34	4210069	2.2µF ±20% 35V
C8	4200097	220µF 16V	C35	4010060	22 nF -20+80% 40V
C9	4210069	2.2µF ±20% 35V	C38	4010041	10 nF -20+80% 40V
C10	4210069	2.2µF ±20% 35V	C39	4010041	10 nF -20+80% 40V
C11	4200342	10µF -10+50% 63V	C40	4010041	10 nF -20+80% 40V
C14	4010041	10 nF -20+80% 40V	C41	4010041	10 nF -20+80% 40V
C15	4010041	10 nF -20+80% 40V	C42	4010041	10 nF -20+80% 40V
C16	4010041	10 nF -20+80% 40V	C43	4010041	10 nF -20+80% 40V
C17	4010041	10 nF -20+80% 40V	C46	4010041	10 nF -20+80% 40V
C20	4010031	680 pF ±10% 100V	C48	4010041	10 nF -20+80% 40V
C21	4010031	680 pF ±10% 100V	C49	4010041	10 nF -20+80% 40V
C22	4010031	680 pF ±10% 100V	C50	4010041	10 nF -20+80% 40V
C23	4010031	680 pF ±10% 100V	C51	4010041	10 nF -20+80% 40V
C24	4010031	680 pF ±10% 100V	C52	4010041	10 nF -20+80% 40V
C25	4010031	680 pF ±10% 100V			

IL2	8230060	6V 80 ma	X1	8090006	2.0 MHz ±30 ppM
IL3	8230060	6V 80 mA			

P28	7220177	Plug 11 pins		7500013	Contact pin
P29	7220200	Plug 14 pins		3302321	Screen for µC
P30	7220199	Plug 12 pins		7200321	Socket for µC
P31	7220239	Plug 8/7 pins			
P32	7220167	Plug 6/6 pins			

Present, 8002365, PC22

R1	5010040	1 kohms ±5% 1/8W	R13	5010040	1 kohms ±5% 1/8W
R2	5010053	15 kohms ±5% 1/8W	R14	5010053	15 kohms ±5% 1/8W
R4	5010040	1 kohms ±5% 1/8W	R15	5300092	100 kohms PRESENT
R5	5010053	15 kohms ±5% 1/8W	R16	5070040	1 kohms ±5% 1/8W
R6	5300092	100 kohms PRESENT	R17	5070053	15 kohms ±5% 1/8W
R7	5010040	1 kohms ±5% 1/8W	R18	5300092	100 kohms PRESENT
R8	5010053	15 kohms ±5% 1/8W	R19	5370058	5 kohms ±20%
R9	5300092	100 kohms PRESENT	R20	5010053	15 kohms ±5% 1/8W
R10	5010040	1 kohms ±5% 1/8W	R21	5010081	470 kohms BALANCE
R11	5010053	15 kohms ±5% 1/8W	R22	5010081	470 kohms TREBLE
R12	5300092	100 kohms PRESENT	R23	5010081	470 kohms BASS

P27	7220194	Plug 18/18 pins		7402088	Switch AFS.

AM, 8002367, PC23

R1	5010448	220 ohms ±5% 1/8W	R6	5010048	4.7 kohms ±5% 1/8W
R3	5010048	4.7 kohms ±5% 1/8W	R7	5010079	22 kohms ±5% 1/8W
R4	5010053	15 kohms ±5% 1/8W	R8	5370074	10 kohms ±20%
R5	4310013	2 x 335 pF +100 kohms	R9	5370058	5 kohms ±20%

C1	4000016	10 pF ±2% 63V	C16	4130103	100 nF ±20% 250V
C2	4340003	5.5 -65 pF foil	C17	4000101	120 pF ±5% 63V
C3	4011025	3.3 nF ±10% 40V	C18	4101020	1.5 nF ±5% 63V
C4	4340002	2-22 pF foil	C19	4101020	1.5 nF ±5% 63V
C5	4130103	100 nF ±20% 250V	C20	4010060	22 nF -20+80% 40V
C6	4130150	100 nF ±20% 100V	C21	4100029	2.2 nF ±57 63V
C7	4130123	130 pF ±2.5% 63V	C22	4130103	100 nF ±20% 250V
C8	4340003	5.5-65 pF foil	C23	4130103	100 nF ±20% 250V
C9	4003130	47 pF ±20% 63V	C24	4200218	22µF ±20% 6V
C10	4310013	2 x 335 pF + 100 kohms	C25	4200218	22µF ±20% 6V
C12	4100128	330 pF ±2.5% 63V	C26	4070062	330 pF ±10% 100V
C13	4340002	2-22 pF foil	C27	4200169	0.1µF ±20% 35V
C14	4201035	2.2µF -10+50% 63V			

L1	8020313	Coil LW	L4	8020316	Coil MW osc.
L2	8020331	Coil MW	L6	8020314	469 kHz
L3	8020317	Coil LM osc.	L7	8020315	469 kHz

X1	8030006	468 kHz ±1.5 kHz	IL1	8230060	80 mA 60V
X2	8030006	468 kHz ±1.5 kHz			

P6	7220140	Plug 16/15 pins		7400189	Switch AM-FM
				7500013	Contact pin
				3504017	Screen/housing

Record Level, 8002360, PC25

R3	5310084	2 x 47 kohms	C1	4200101	10µF ±20% 16V
R4			C2	4200101	10µF ±20% 16V

P23	7220193	Plug 9/9 pins

Volume, 8002362, PC27

R1	5310082	22 kohms LIN	P16	7220166	Plug 3/3 pins

P6, 8002445, PC33

R8	5010048	4.7 kohms ±5% 1/8W	R11	5370074	10 kohms ±20%
R9	5010059	10 kohms ±5% 1/8W	R12	4310013	2 x 335 pF
R10	5010141	27 kohms ±5% 1/8W	R13	5370058	5 kohms ±20%

P6	7220140	Plug 16/15 pins

MP-Tape Indicator, 8002440, PC34

R1	5010064	2.2 kohms ±5% 1/8W
R2	5010044	330 ohms ±5% 1/8W

P44	7220131	Plug 4/3 pins

LIST OF MECHANICAL PARTS
Bottom Chassis

01Modul	8050071	PC, front end			
02Modul	8002354	PC, FM complete	0202	2039026	Screw AM3 x 4 black
0201	2542509	Bracket			
03Modul	8002358	PC, power ampl. + power supply			
05Modul	8002356	PC, switch			
06Modul	8002444	PC, Mic.-Tape	0604	2542525	Bracket
0601	2039015	Screw M3 x 6	0605	3152261	Holder
0602	2622052	Fibre washer	0606	2389045	Nut
0603	2576088	Spacer			
1001	2039011	Screw AM3 x 25 black	1016	2622022	Washer 4.3
1002	2622306	Washer 3.2 black	1017	2542542	Arm
1003	2015089	Screw 3.5 x 9.5 black	1018	2039015	Screw M3 x 6
1004	2013201	Screw 2.9 x 6.5	1019	3152259	Holder
1005	3152006	Holder	1020	2380016	Nut M4
1006	3152260	Holder	1021	2015089	Screw 3.5 x 9.5 black
1007	3413061	Cabinet set, self-adhesive, teak	1022	2039037	Screw AM3 x 16 black
			1023	2043014	Screw AM4 x 40
	3413063	Cabinet set, self-adhesive, rosewood	1024	3302305	Screen
			1025	2622022	Washer 4.3
	3413064	Cabinet set, self-adhesive oak	1026	2938154	Bushing
			1027	3172082	Insulating piece
	3413065	Cabinet set, self-adhesive white	1028	3302306	Screen
			1029	2015089	Screw 3.5 x 9.5 black
1008	2015089	Screw 3.5 x 9.5 black	1030	2542543	Bracket
1009	2015089	Screw 3.5 x 9.5 black	1031	2568602	Moulding
1010	7530090	Solder tag	1032	3035028	Rubber foot
1011	3152260	Holder	1033	2013099	Screw 2.9 x 6.5
1012	2850096	Arm	1034	2015089	Screw 3.5 x 9.5 black
1013	2938154	Bushing	1035	3164338	Cover
1014	2015089	Screw 3.5 x 9.5 black	1036	2015089	Screw 3.5 x 9.5 black
1015	2043010	Screw AM4 x 65 black	1037	2576050	Spacer
11Modul	8004210	PC, tape			
12P1	6275440	Set of wires with socket		3152214	Wires binder
12P2	6275441	Set of wires with socket			
13Modul	8013203	Mains transformer	13F1	6600022	Fuse 1.6 A slow
1301	6271101	Mains lead with euro-plug	13F2	6600022	Fuse 1.6 A slow
1302	7500002	Fuse holder		3302318	Screen f. fuse holder
1303	7400119	Voltage switch		3172085	Insulation f. fuse holder
1304	8002373	Fuse holderr			
1305	6275407	Set of wires	13C1	4200421	1000µF -10+50% 6.3V
13P9	6275421	Set of wires P9 & P10			
13P10	6275421	Set of wires P9 & P10			
19Modul	6275449	Main wire bundle	19P13	7210138	Socket/housing 13/14 contacts
1902	7220148	Plug			
19P3	7210215	Socket/housing 21/20 contacts	19P14	7210174	Socket/housing 15/16 contacts
19P4	7210113	Socket/housing 3/4 contacts	19P15	7210214	Socket/housing 14/15 contacts
19P5	7210164	Socket/housing 5/6 contacts			
19P8	7210130	Socket/housing 11/12 contacts	19P24	7210117	Socket/housing 8 contacts
			19P25	7210170	Socket/housing 3 contacts
19P11	7210165	Socket/housing 18/19 contacts	19P26	7210118	Socket/housing 9 contacts
				7500114	Contact pin
19P12	7210113	Socket/housing 3/4 contacts		6273887	Aerial Cord

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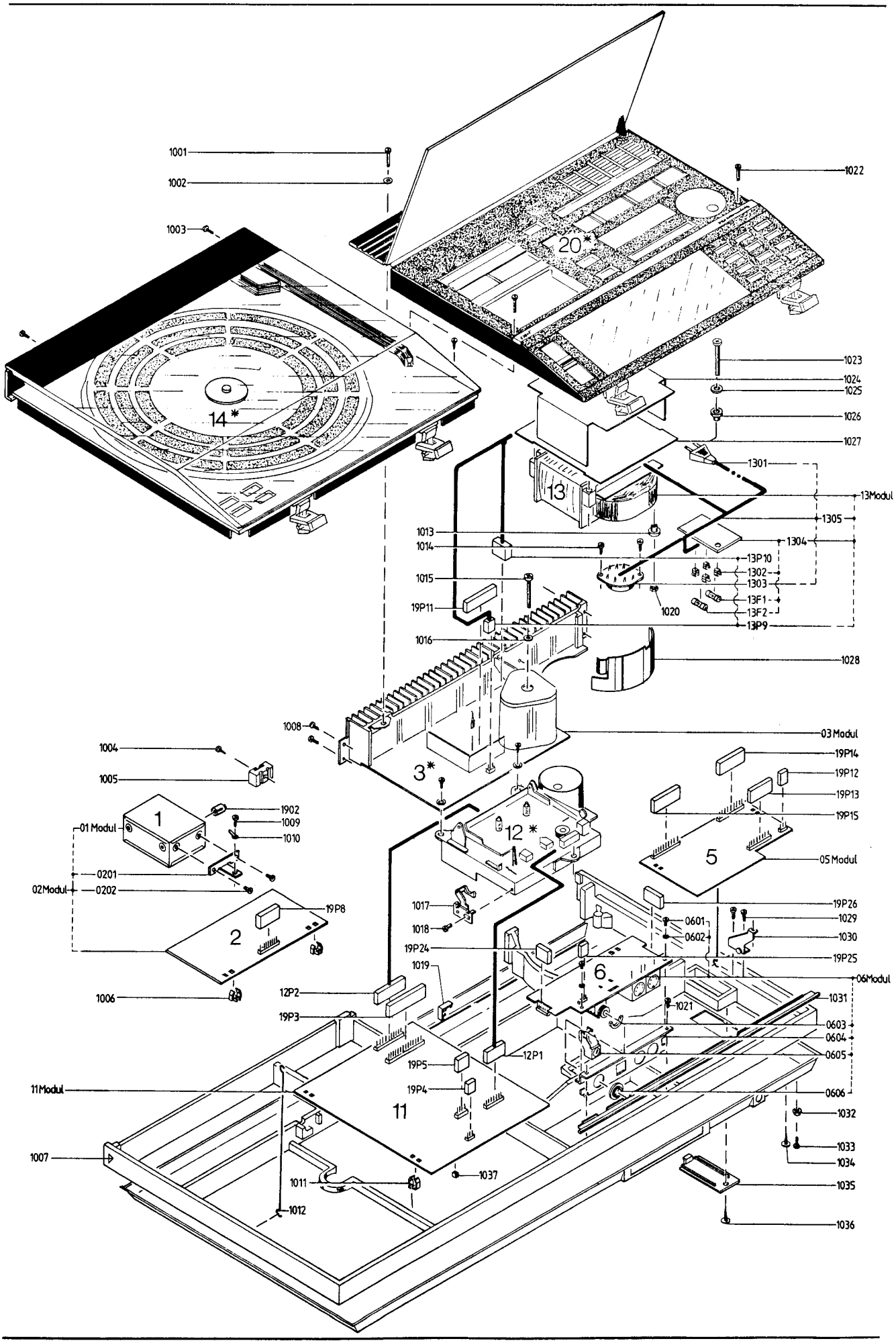
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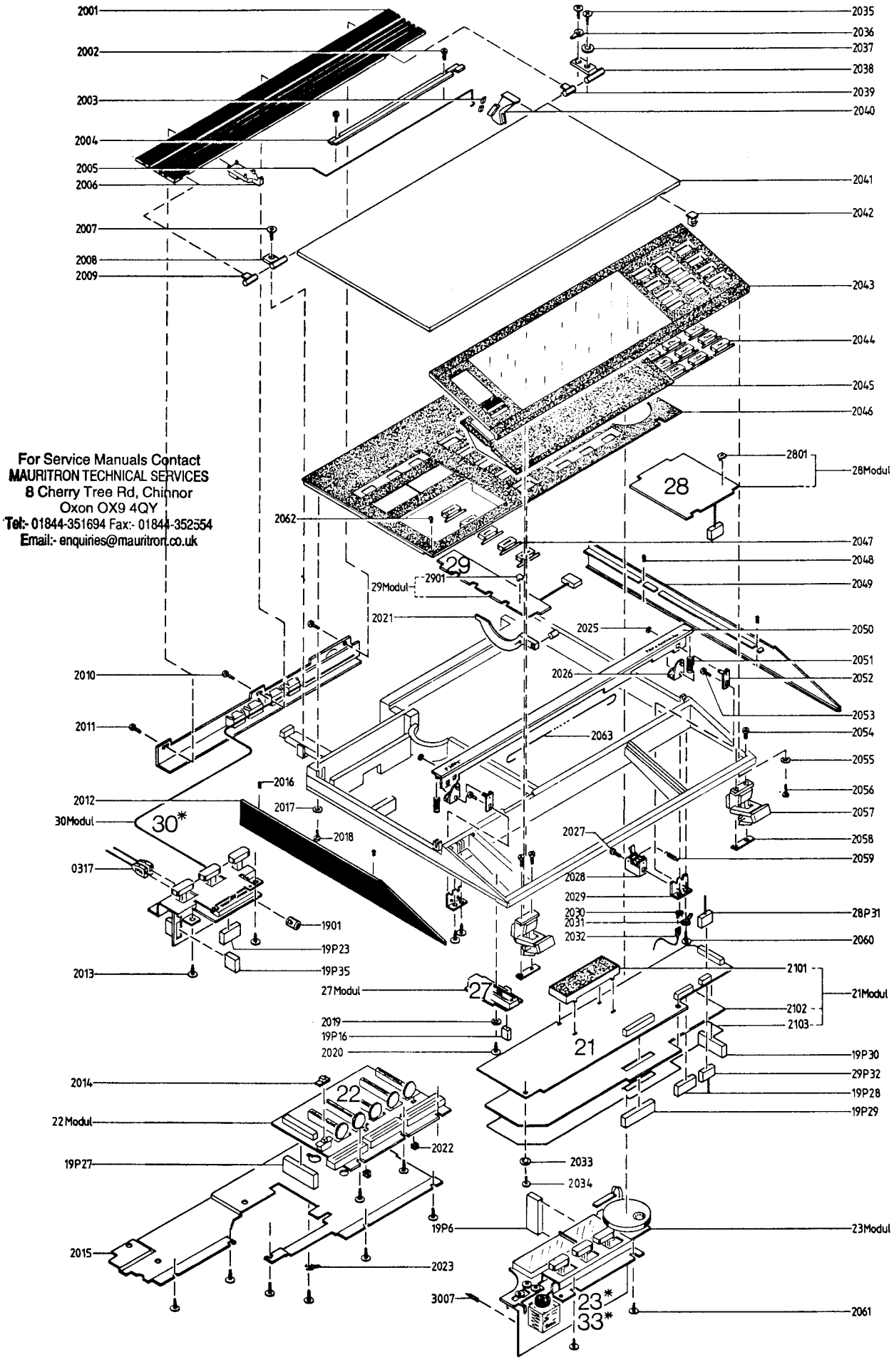

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Top Chassis

0317	6100054	Wire with socket

1901	7220148	Plug
19P6	7210174	Socket/housing 16/15 contacts
19P16	7210170	Socket/housing 3 contacts
19P23	7210118	Socket/housing 9 contacts
19P27	7210213	Socket/housing 18 contacts
19P28	7210120	Socket/housing 11 contacts
19P29	7210167	Socket/housing 14 contacts
19P30	7210121	Socket/housing 12 contacts
19P35	7210132	Socket/housing 6 contacts
	7500114	Contact pin

2001	2568632	Rear moulding
2002	2015089	Screw 3.5 x 9.5 black
2003	3035027	Slider
2004	3014048	Bracket
2005	2812083	Spring
2006	3010015	Stop
2007	2015089	Screw 3.5 x 9.5 black
2008	3030043	Hinge
2009	3030041	Hinge
2010	2039033	Screw M3 x 6 black
2011	2015093	Screw 3.5 x 13 black
2012	2548542	Side piece
2013	2015089	Screw 3.5 x 9.5 black
2014	2775350	Button
2015	3302301	Screen
2016	2070034	Threaded pin M3 x 5
2017	2622117	Washer
2018	2013089	Screw 2.9 x 7.9
2019	2938081	Rubber bushing
2020	2015089	Screw 3.5 x 9.5 black
2021	3011011	Arm
2022	2576050	Spacer
2023	7530090	Solder tag
2025	2390001	Locking ring 2.3
2026	2854070	Arm
2027	2039007	Screw AM3 x 3
2028	2530388	Bracket
2029	2530356	Bracket
2030	7500145	Contact piece
2031	7530087	Solder tag
2032	6250093	Socket with wire
2033	2938081	Rubber bushing
2034	2015089	Screw 3.5 x 9.5 black
2035	2015066	Screw 3.5 x 16 black
2036	7530087	Solder tag
2037	2622304	Washer
2038	3030055	Hinge
2039	3030041	Hinge
2040	3011010	Friction plate
2041	2568631	Lid
2042	3034039	Lock
2043	3168164	Panel
2044	2775793	Set of buttons
2045	3302302	Screen
2046	3168162	Panel type 1802
2046	3168163	Panel type 1804
2047	2775790	Set of buttons
2048	2070034	Threaded pin M3 x 5
2049	2568746	Side piece
2050	2568630	Moulding
2051	2810097	Spring
2052	2530389	Bracket
2053	2039007	Screw AM3 x 3
2054	2013107	Screw M2.9 x 9.5 black
2055	2622306	Washer
2056	2013025	Screw 2.9 x 13 black
2057	3030054	Hinge
2058	2641092	Clamp
2059	2810008	Spring
2060	2015089	Screw 3.5 x 9.5 black
2061	2015089	Screw 3.5 x 9.5 black
2062	3010007	Stop
2063	2850095	Connection piece

21Modul	8002442	PC, display	2102	3302321	Screen
2101	3131180	Lamp housing	2103	3170188	Insulating plate

22Modul	8002365	PC, FM preset + tone control

23Modul	8002367	PC, AM (only type 1802)

27Modul	8002362	PC, volume control

28Modul	8002370	PC, primary operation	2801	7500149	Contact spring

29Modul	8002483	PC, secundary operation	2901	7500149	Contact spring

30Modul	8002448	PC, speakers switch + socket panel, type 1802	3007	7500014	Contact bushing
	8002359	PC, speakers, switch + socket panel, type 1804			

33Modul	8002445	PC P6 (only type 1804)

34Modul	8002440	PC MP-Tape indicator

Chassis, Record Player

	1407	2039028	Screw AM3 x 8 black		1429	2938100	Bushing
	1408	3164404	Dust cover		1430	2622228	Washer
	1409	2726126	Turntable	*2	1431	2815007	Leaf spring
	1410	2622264	Cover washer	*1	1432	2815012	Leaf spring
	1411	2046910	Screw		1433	2070400	Threaded pin M2 x 3
	1412	2036213	Screw AM2.6 x 8		1434	2722022	Pulley
	1413	2622271	Washer 2.7		1435	8954650	Pick-up MMC 20E (replacement)
	1414	2938137	Rubber bushing				
	1415	2930074	Brass bushing		1436	2732037	Drive belt
	1416	3120247	Holder		1438	3458231	Top plate
	1417	2775806	Set of buttons		1439	3030054	Hinge
	1418	3152272	Holder		1440	2641092	Clamp
	1419	2039903	Screw AM3 x 5		1441	2039903	Screw AM3 x 5
	1420	7500145	Contact piece		1442	2510067	Wire holder
	1421	6250093	Socket with wire		1443	2039903	Screw AM3 x 5
	1422	3180767	Washer		1444	3152063	Holder
	1423	2042209	Screw AM4 x 10		1445	2622231	Mica sheet
	1424	2640031	Clamp		1446	2013201	Screw 2.9 x 6.5
	1425	2938129	Bushing		1451	2072101	Lifting screw
	1426	2514028	Hook		1452	2854076	Lifting arm
*1	1427	2815012	Leaf spring		1453	2622271	Washer
	1428	2640032	Clamp		1454	2810091	Spring

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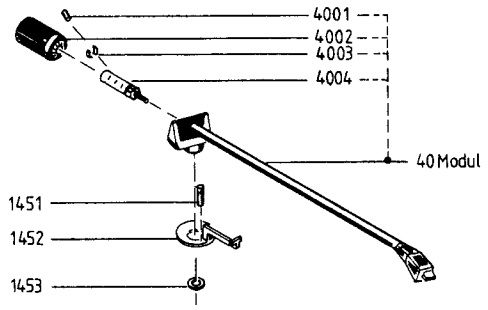
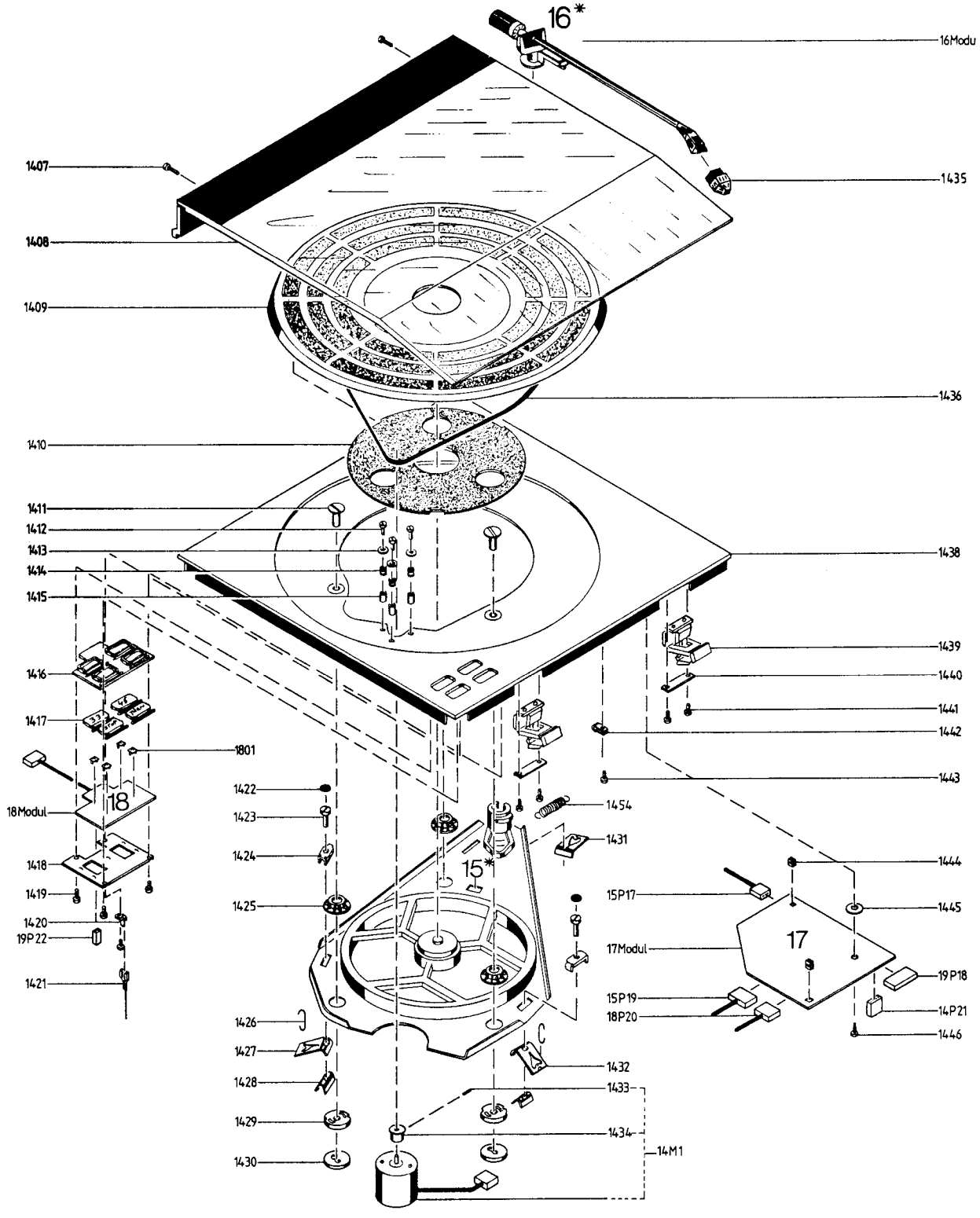
	14M1	8400098	Motor			7500114	Kontaktben
	14P21	7210115	Socket/housing 5/4 contacts				
	15P17	6270207	Set of wires with socket		15P19	6273837	Set of wires with socket
	17Modul	8005035	PC, phono				
	18Modul	8005047	PC, operation		1801	7500149	Contact spring
	19P18	7210198	Socket/housing 10/9 contacts		19P22	7210114 7500114	Socket/housing 2 contacts Contact pin

Pick-up Arm 2850101



	4001	2070035	Threaded pin M3 x 6		4003	2576114	Adjustment bushing
	4002	3342076	Counterweight		4004	2834077	Axle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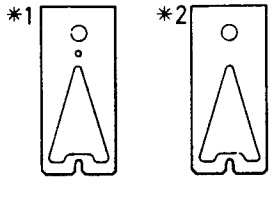
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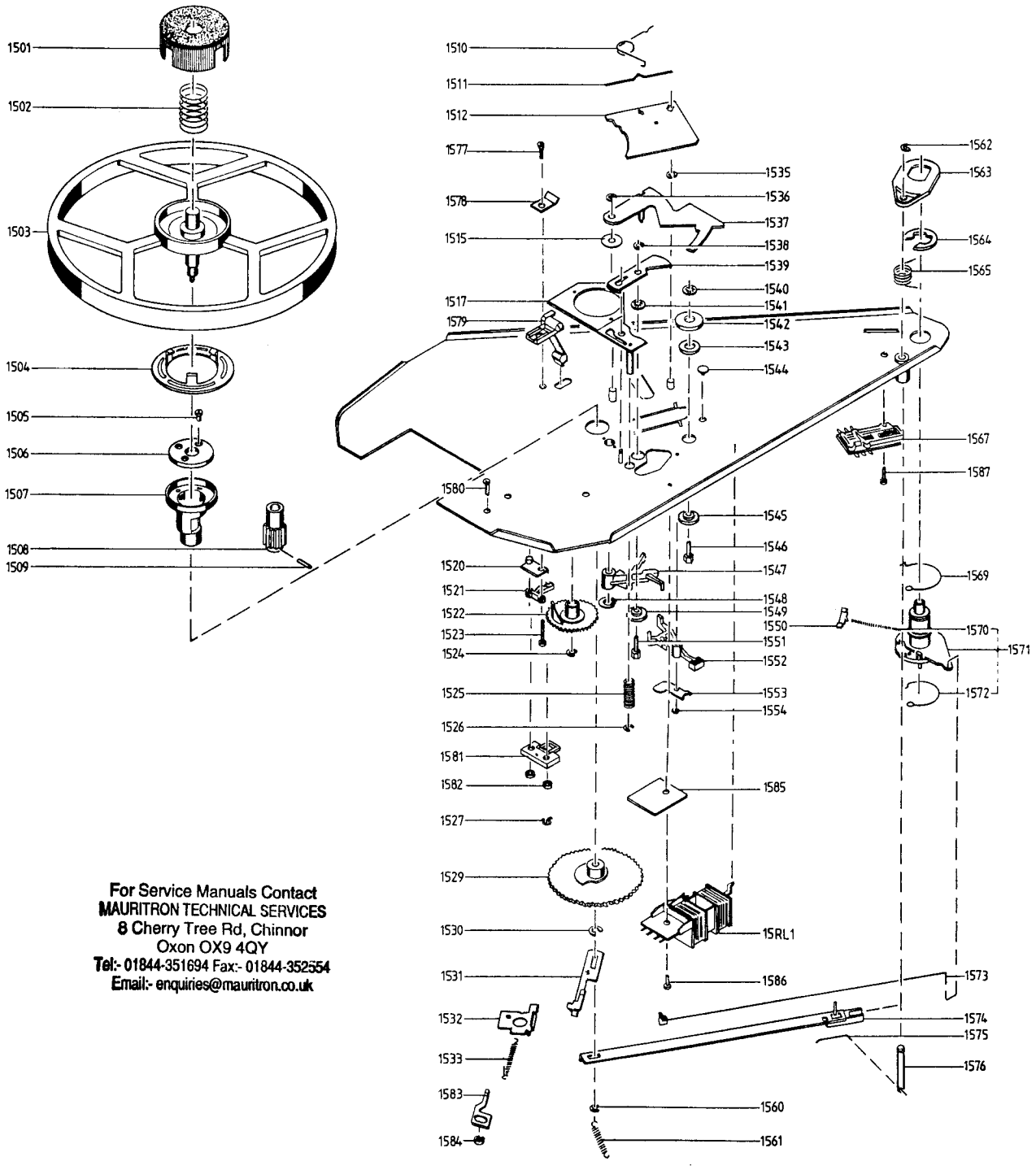

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Record Player Deck

1501	3014039	Adaptor
1502	2818059	Spring
1503	2794075	Flywheel
1504	3014040	Adaptor ring
1505	2038220	Screw AM3 x 12
1506	2905075	Bearing ring
1507	3150037	Bearing bushing
1508	2700024	Gear-wheel
1509	2361048	Locking pin
1510	2819145	Spring
1511	2819155	Spring
1512	3014041	Friction plate
1515	2622285	Cover
1517	3014052	Adaptor plate
1520	2576129	Spacer
1521	7402081	Micro-switch
1522	2700026	Gear wheel
1523	2038229	Screw M3x18
1524	2390002	E-ring 3.2
1525	2818068	Spring
1526	2390002	E-ring 3.2
1527	3152118	Lead holder
1529	3017014	Camwheel
1530	2390002	E-ring 3.2
1531	2542511	Bracket
1532	2542512	Bracket
1533	2818069	Spring
1535	2390002	E-ring 3.2
1536	2390002	E-ring 3.2
1537	3014031	Arm
1538	2990001	E-ring 2.3
1539	3014043	Stop
1540	2395030	Locking disc.
1541	2395030	Locking disc.
1542	2938084	Washer
1543	2622198	Washer
1544	3035020	Plastic foot
1545	2803005	Washer
1546	2992048	Tap
1547	2853058	Arm
1548	2390084	E-ring 5.5
1549	2803005	Washer
1550	2816162	Slider
1551	2992076	Tap
1552	2853059	Arm
1553	3164387	Cover
1554	2380011	Nut M3
1560	2390002	E-ring 3.2
1561	2810082	Spring
1562	2390002	E-ring 3.2
1563	2623034	Lifting plate
1564	2938141	Lock
1565	2812082	Spring
1567	7459018	Silente contact
1569	2819106	Spring
1570	2810095	Spring
1571	2938153	Bearing complete
1572	2819107	Spring
1573	2850105	Arm
1574	2850040	Arm
1575	2430326	Arm
1576	2850093	Bar
1577	2039908	Screw M3 x 10
1578	2819160	Spring
1579	2853091	Arm
1580	2039013	Screw M3 x 16
1581	3131205	Housing with reed-relay
1582	2380011	Nut M3
1583	3031068	Bracket
1584	2389061	Adjustment nut
1585	3170203	Insulation piece
1586	2039908	Screw M3 x 10
1587	2039908	Screw M3 x 10

15RL1	8024060	Coil complete
	6273948	Set of wires for 15RL1
	7500135	Contact spring

Tape Deck, Top

12001	2036017	Screw M2.6 x 4	12062	2810104	Spring
12002	7530088	Solder tag	12063	2853062	Sensor
12003	2530382	Bracket	12064	2818062	Spring
12004	2036030	Screw 2.6 x 8	12065	2853061	Sensor
12005	2810110	Spring	12066	2036023	Screw 2.6 x 7
12006	2530377	Bracket	12067	2810113	Spring
12007	2036028	Screw 2.6 x 6	12068	2853068	Arm
12008	2542534	Bracket	12069	2932093	Bushing
12009	2810101	Spring	12070	2036021	Screw M2.6 x 3
12010	2917018	Ball 2.5	12071	2624045	Washer
12011	2917018	Ball 2.5	12072	2542538	Bracket
* 12012	3010017	Stop	12073	2036029	Screw 2.6 x 8
12013	2917018	Ball 2.5	12074	6140766	Mounting plate
12014	2530380	Bracket	12075	3151189	Lamp housing
12015	2036018	Screw M2.6 x 5	12076	2036022	Screw M2.6 x 5
* 12016	3010017	Stop	12077	2036022	Screw M2.6 x 5
12017	2034047	Screw M2 x 4 black	12078	2624045	Washer
12018	3151190	Holder	12079	2932089	Brass bushing
12019	3199058	Light conductor	12080	2036023	Screw M2.6 x 7
12020	3151188	Bracket	12081	2542506	Damping system
12021	3164380	Cover	12082	2036019	Screw M2.6 x 3 black
12022	2932092	Supply reel	12083	2624045	Screw
12023	2390078	E-ring 2.0	12084	2548172	Bracket
12024	2853063	Arm	12085	2810103	Spring
12025	2034048	Screw M2 x 5	12086	2034052	Screw M2 x 2 black
12026	2034049	Screw M2 x 4	12087	2622298	Washer
12027	2034050	Screw M2 x 7	12088	2816178	Leaf spring
12028	2034207	Screw M2 x 5	12089	2034047	Screw M2 x 4 black
12029	2622300	Washer	12091	2530379	Bracket
12030	2036029	Screw 2.6 x 8	12092	2034052	Screw M2 x 2 black
12031	2812087	Spring	12093	2810100	Spring and cord
12032	2622294	Washer	12094	2036017	Screw M2.6 x 4
12033	2812088	Spring	12095	7530088	Solder tag
12034	2036019	Screw M2.6 x 3 black	12096	2542536	Holder
12035	2816175	Leaf spring	12097	2932088	Cord pulley
12036	3151191	Wire holder	12100	2390056	E-ring 1.5
12037	2917018	Ball 2.5	12101	2722027	Pulley
12038	3112244	Chassis	12102	2072008	Threaded pin
12039	2034051	Screw 2 x 8	12103	2036021	Screw M2.6 x 3
12040	2810108	Spring	12104	2542535	Bracket
12041	2804039	Arm	12105	2036021	Screw M2.6 x 3
12042	2036028	Screw 2.6 x 6	12106	2542537	Bracket
12043	3164380	Cover	12107	2932090	Rubber bushing
12044	2932091	Take-up reel	12108	2932089	Brass bushing
12045	2036020	Screw M2.6 x 4	12109	2932090	Rubber bushing
12046	2810109	Spring	12110	2036023	Screw M2.6 x 7
12047	2390078	E-ring 2.0	12111	2036023	Screw M2.6 x 7
12048	2622297	Washer	12112	2530381	Bracket
12049	2804041	Thrust roller	12113	2624013	Washer
12050	2622297	Washer	12114	2039039	Screw M3 x 4
12051	2390078	E-ring 2.0	12115	2039039	Screw M3 x 4
12052	2853067	Arm	12116	2624013	Washer
12053	2622297	Washer	12117	2622245	Plastic washer
12054	7530089	Solder tag	12118	2034207	Screw M2 x 5
12055	2816176	Bracket	12119	2818067	Spring
12056	2036029	Screw 2.6 x 8	12120	2034051	Screw 2 x 8
12057	2816177	Leaf spring	12121	2932095	Bushing
12058	2036029	Screw 2.6 x 8	12122	2810128	Spring
12059	2917018	Ball 2.5	12123	2853090	Arm
12060	2816175	Leaf spring	12124	2013099	Screw 2.9 x 6.5
12061	2917018	Ball 2.5	12125	8004224	Noise filter

12H1	8600054	Tape head	12H2	8600055	Erase head
12IL1	8230060	Lamp			
12M1	8400101	Motor			
12S1	7410018	Switch	12S4	7410019	Switch
12TR1	8320429	Transistor			

* Replacing stops 12012/12016 new stops are to be glued with IS 12 (code no. 3980033)

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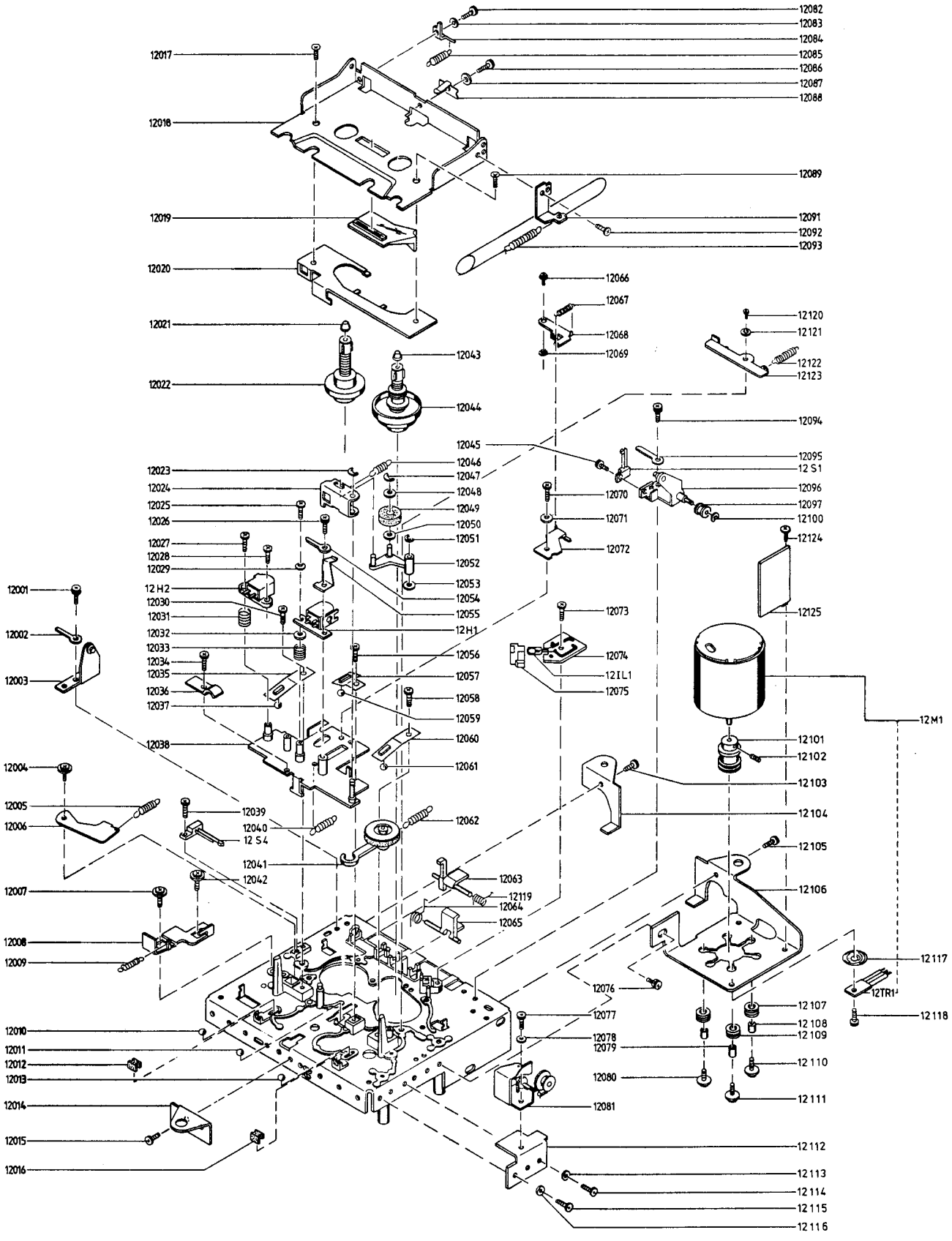
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12M1
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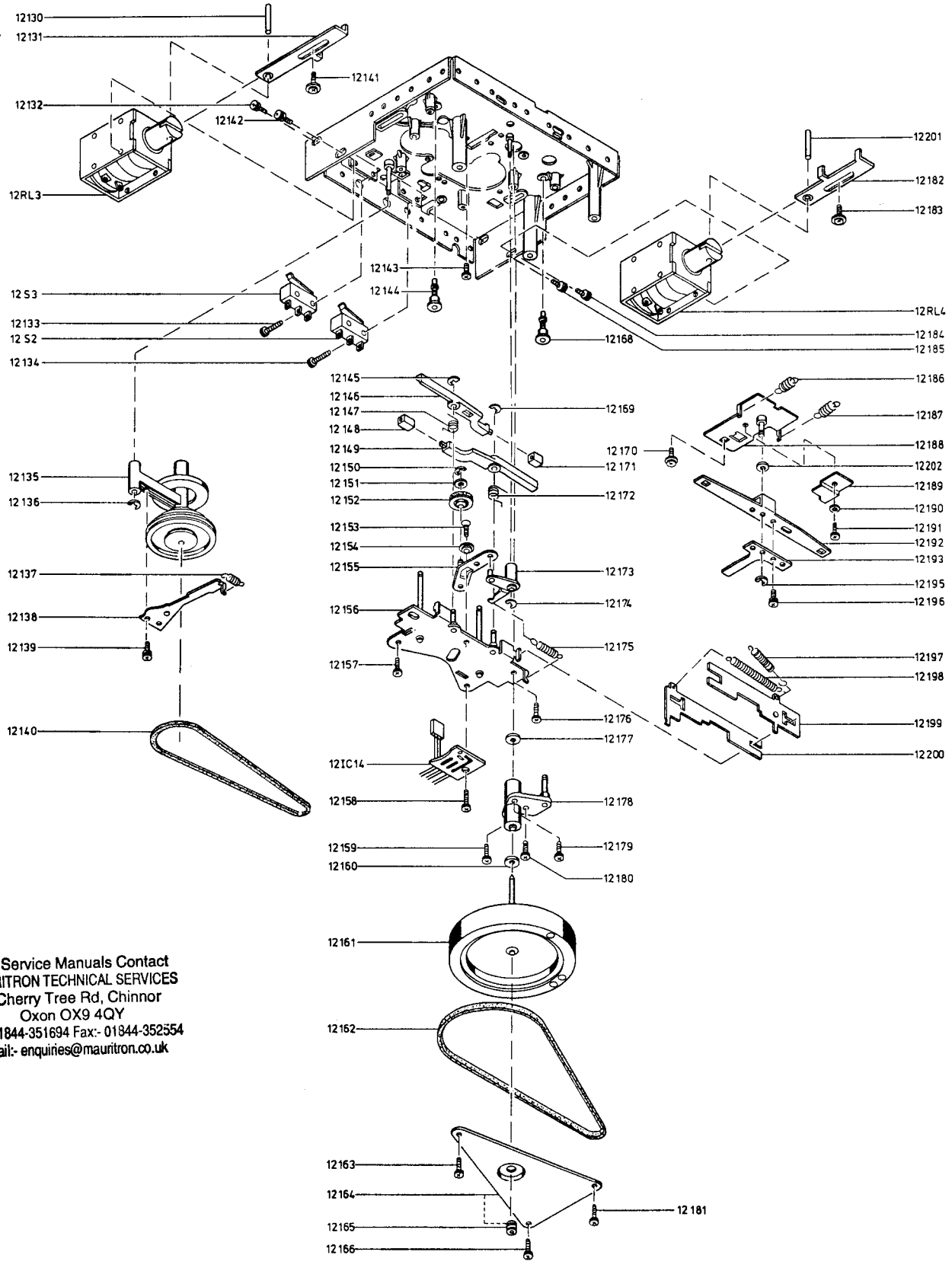

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Tape Deck, Bottom

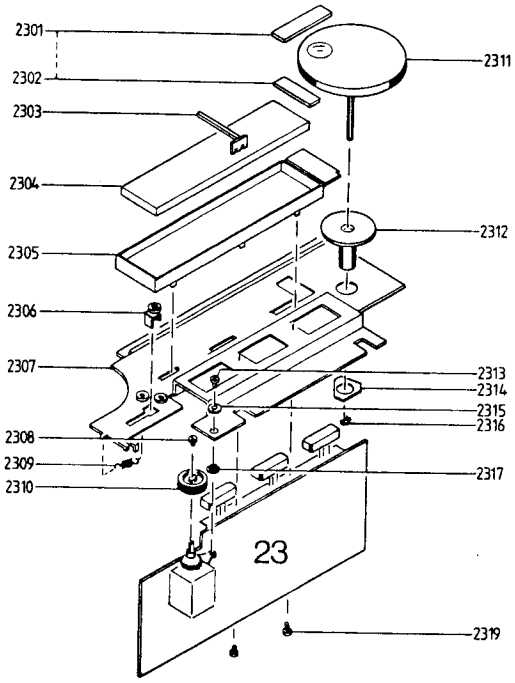
12130	2361055	Pin	12166	2036027	Screw 2.6 x 10
12131	2894046	Arm	12168	2994023	Guide pin
12132	2038063	Screw M3 x 5	12169	2390078	E-ring 2.0
12133	2036026	Screw M2.3 x 10	12170	2036025	Screw M2.6 x 6.5
12134	2036026	Screw M2.3 x 10	12171	2938161	Brake block
12135	2724059	Cluth	12172	2818066	Spring
12136	2390073	E-ring 2.5	12173	2854077	Arm
12137	2810099	Spring	12174	2390078	E-ring 2.0
12138	2530378	Bracket	12175	2810102	Spring
12139	2036010	Screw M2.6 x 8	12176	2036027	Screw 2.6 x 10
12140	2732047	Belt	12177	2622296	Plastic washer
12141	2036030	Screw 2.6 x 8	12178	3114148	Bearing
12142	2038063	Screw M3 x 5	12179	2036024	Screw M2.6 x 6
12143	2034051	Screw 2 x 8	12180	2036024	Screw M2.6 x 6
12144	2994023	Guide pin	12181	2036027	Screw 2.6 x 10
12145	2390078	E-ring 2,0	12182	2894047	Arm
12146	2853065	Arm	12183	2036030	Screw 2.6 x 8
12147	2818065	Spring	12184	2038063	Screw M3 x 5
12148	2938161	Brake block	12185	2038063	Screw M3 x 5
12149	2853064	Arm	12186	2810107	Spring
12150	2390056	E-ring 1.5	12187	2810107	Spring
12151	2622299	Washer	12188	3112248	Bracket
12152	2804040	Wheel	12189	2542539	Bracket
12153	2034053	Screw M2 x 4	12190	2624045	Washer
12154	2932087	Bushing	12191	2036021	Screw M2.6 x 3
12155	2851109	Arm	12192	2853066	Arm
12156	3112246	Chassis	12193	3014049	Arm
12157	2036027	Screw 2.6 x 10	12195	2390073	E-ring 2.5
12158	2036027	Screw 2.6 x 10	12196	2036022	Screw M2.6 x 5
12159	2036024	Screw M2.6 x 6	12197	2810105	Spring
12160	2622295	Plastic washer	12198	2810106	Spring
12161	2794081	Flywheel	12199	3014050	Bracket
12162	2732048	Belt	12200	3014051	Bracket
12163	2036027	Screw 2.6 x 10	12201	2361055	Pin
12164	3112247	Holder	12202	2622322	Washer
12165	2991021	Bearing			

12IC14	8004216	PC complete

12RL3	6840254	Solenoid	12RL4	6840254	Solenoid

12S2	7410020	Switch	12S3	7410020	Switch

AM Module 8002367



2301	3120253	Mounting plate	2311	2794083	Dial wheel
2302	3120253	Mounting plate	2312	2905066	Bearing
2303	3190078	Pointer	2313	2036016	Screw AM2.6 x 6
2304	3370124	Light conductor	2314	2395035	Spire
2305	3131170	Housing	2315	2622041	Fibre washer 3.2
2306	2542514	Cord pulley	2316	2390004	Circlip UG3 x 0.6
2307	3124076	Bracket	2317	2938026	Bushing
2308	2036201	Screw AM2.6 x 3	2319	2039007	Screw AM3 x 3
2309	2810086	Spring		3955001	Dial cord
2310	2724056	Cord wheel			

P6 Module 8002446

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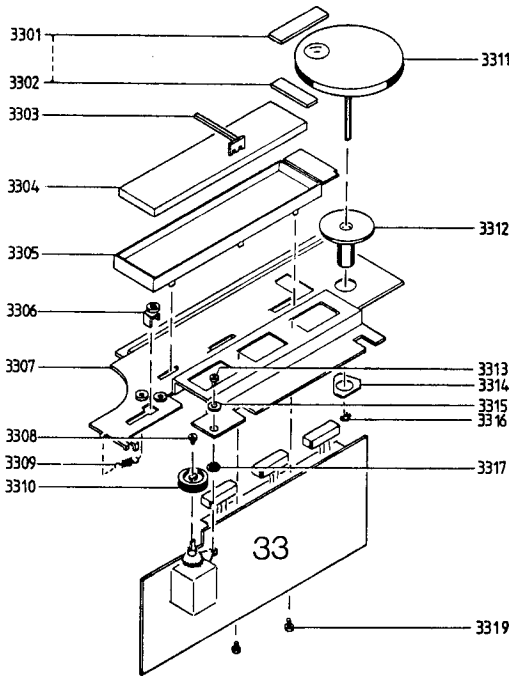
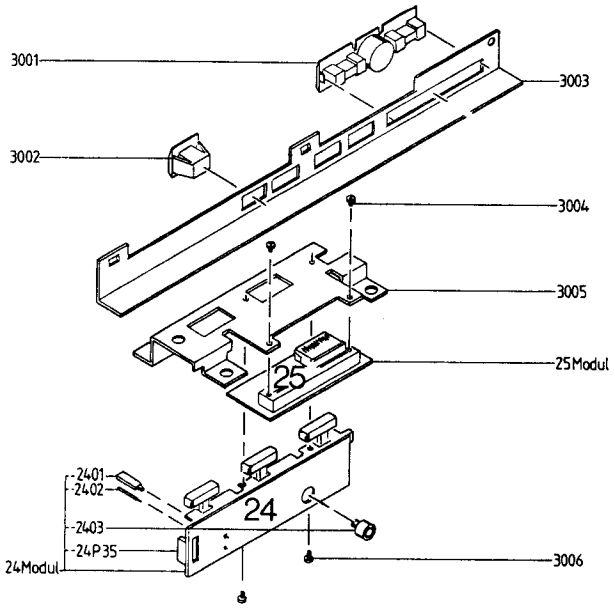


3301	3120253	Mounting plate	3311	2794083	Dial wheel
3302	3120253	Mounting plate	3312	2905066	Bearing
3303	3190078	Pointer	3313	2036016	Screw AM2.6 x 6
3304	3370124	Light conductor	3314	2395035	Spire
3305	3131170	Housing	3315	2622041	Fibre washer 3.2
3306	2542514	Cord pulley	3316	2390004	Circlip UG3 x 0.6
3307	3124076	Bracket	3317	2938026	Bushing
3308	2036201	Screw AM2.6 x 3	3319	2039007	Screw AM3 x 3
3309	2810086	Spring		3955001	Dial cord
3310	2724056	Cord wheel			

PC, Power Amplifier and Power Supply
8002448 - Type 1802
8002359 - Type 1804

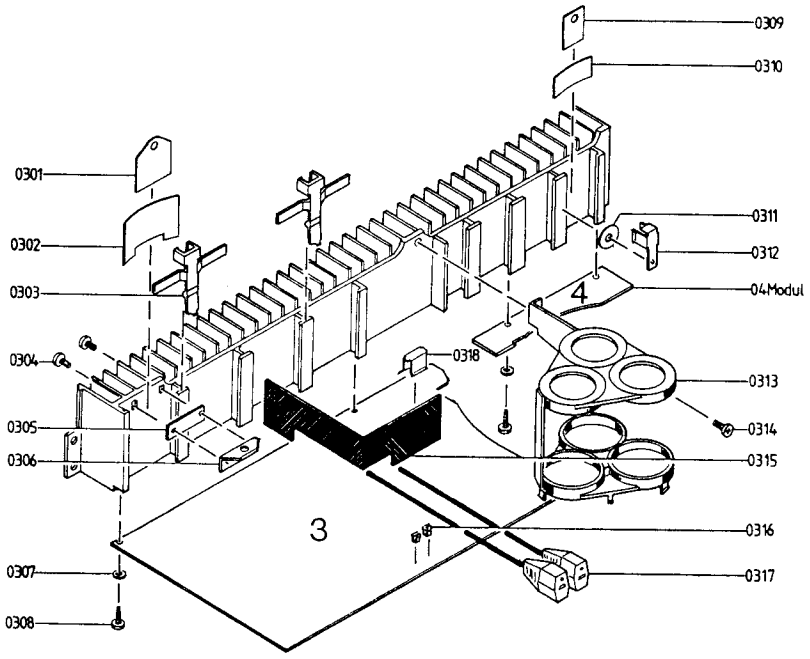


24Modul	8002361	PC, speakers switch	2402	7500100	Pin, round
24P35	7220167	Plug	2403	7210272	Socket
2401	7500101	Pin, flat			

25Modul	8002360	PC level

3001	7210099	Socket panel for type 1802	3003	2530367	Bracket for type 1804
3001	7220028	Socket panel for type 1804	3004	2039007	Screw AM3 x 3
3002	7210251	Socket	3005	3124075	Bracket
3003	2530394	Bracket for type 1802	3006	2039007	Screw AM3 x 3

PC, Power Amplifier and Power Supply 8002358



0301	2622250	Mica sheet	0310	2816179	Spring
0302	2816120	Spring	0311	2622231	Mica sheet
0303	3152257	Holder	0312	3152280	Holder
0304	2039015	Screw M3 x 6	0313	3152262	Holder
0305	3170152	Insulating piece	0314	2039015	Screw M3 x 6
0306	2542508	Bracket	0315	3358146	Heat zink
0307	2622052	Fiber washer 3.2	0316	7500002	Fuse holder
0308	2039028	Screw AM3 x 8 black	0317	6100054	Wire with socket
0309	2622248	Mica sheet	0318	2816169	Spring

04Modul	8002413	PC, power supply

Parts not shown

0T1	8020341	Aerial transformer
	3532144	Diagram for type 1802
	3532147	Diagram for type 1804
	3391539	Outer carton
	3391561	Insert for turntable
	3391584	Insert for eject rail
	3397421	Foam packing
	3984005	Lubricant Rocol kilopoise 1016S for lid
	3950007	Plastic moulding for screen/ mains transformer
	3627006	Cleaning brush for pick-up
	6273887	Intern aerial lead
	3114140	Foam chassis-top
	3114139	Foam chassis-bottom

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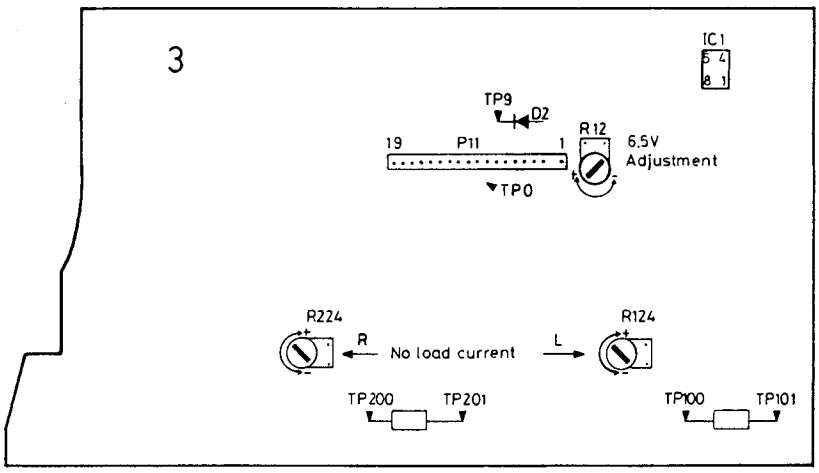
RADIO SECTION ADJUSTMENTS

6.5 V Power Supply

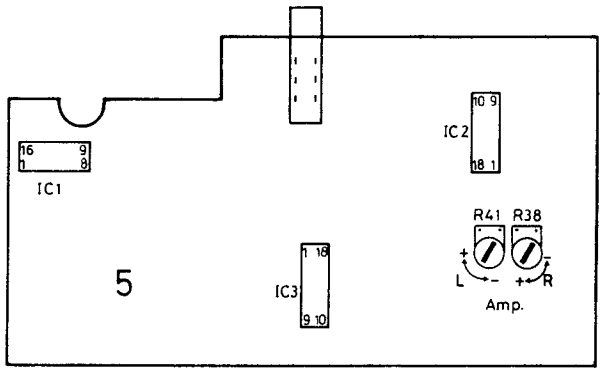


Switch to ST BY.
Connect DC voltmeter between 3TP0 and 3TP9.
With 3R12 adjust voltage to 6.5 V ±0.1 volt.

No-Signal Current

Select P1 – P5.
No-signal current should be adjusted with the receiver cold and with the volume control turned all the way down.
Speakers must not be connected.
Connect DC millivoltmeter between 3TP200 and 3TP201 (3TP100 and 3TP101), or a mA meter in the collector of 3IC200 (3IC100).
With 3R224 (3R124) adjust for 10 millivolts, or 25 mA.

Gain (AF)

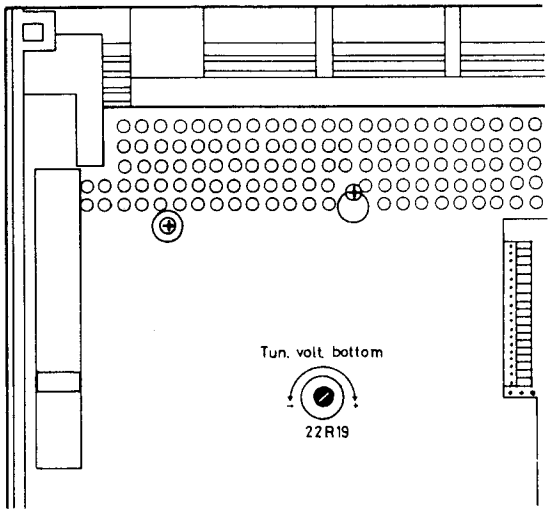


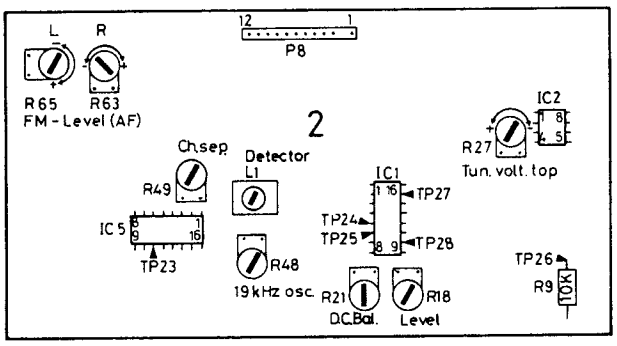
Switch to P1 – P5.
Volume control at max.
Bass, treble and balance controls at neutral.
Connect tone generator to external tape input and set it to deliver 1 kHz – 140 millivolts.
Connect AC voltmeter to speaker output.
With 5R41 adjust voltage to 12.7 volts in left channel and with 5R38 adjust to 12.7 volt in right channel. (12.7 volts represents 40 watts at 4-ohm load).

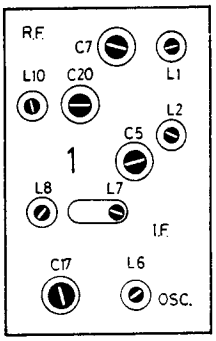
FM – Presetting of Potentiometers

When performing total readjustment of the FM section it will be an advantage to preset the potentiometers as follows:
2R21 and 2R27 should be set at midscale.
2R18, 2R49, 2R63 and 2R65 should be turned fully clockwise.

Tuning Voltage







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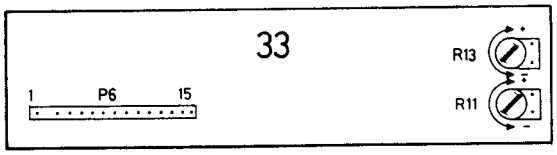
Switch to P6 – FM.
Adjust 2R27 to 27.5V measured on P8 pin 6.
Adjust 22R19 to 4V measured on P6 pin 15.
Set dial to 89 MHz, adjust 23R9 (* 33R13) to 5.6V measured in 2TP26.
Set dial to 106 MHz adjust 23R8 (* 33R11) to 21.0V measured in 2TP26.

* Adjustment of 33R13 and 33R11 applies for type 1802.



Tuner

Select P6 – FM and tune to 89 MHz.
Connect sweep generator to aerial input and set to 89 MHz.
Connect oscilloscope through RC probe to 2TP28 (pin 10 of 2IC1) or through diode probe to 2TP27 (pin 15 of 2IC1).
With 1L6, 1L1, 1L2 and 1L10 adjust for max. and symmetrical IF curve.
Now set the dial pointer to 106 MHz and the sweep generator to 106 MHz.
With 1C17, 1C7, 1C5 and 1C20 adjust for max. and symmetrical IF curve.
Check dial accuracy. Repeat adjustment if necessary. Now set dial pointet to 94 MHz and sweep generator to 94 MHz.
With 1L7 and 1L8 adjust for max. and symmetrical IF curve.

Detector

Select a dial setting of e.g. 94 MHz. Connect a signal generator (or perhaps a stereo coder); this should be set to the same frequency. Switch off AFC on the set.
Connect DC voltmeter to 2TP28.
Applying a low input signal, set the tuning control for min. DC voltage at 2TP28.
Connect wattmeter or AC voltmeter to AF output.
Increase input signal (1 millivolt), and adjust 2L1 for max. AF output (thereafter, if required, for min. distortion).

Connect DC voltmeter between 2TP24 and 2TP25 (pins 5 and 6 of 2IC1).
Adjust 2R21 for 0 V.

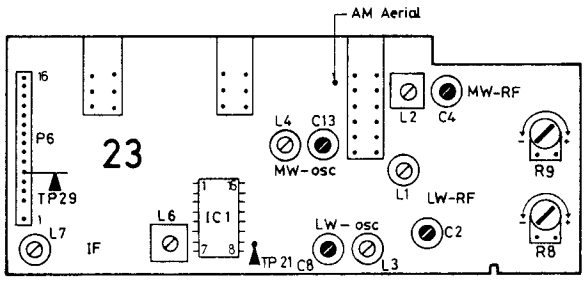
Stereo decoder

Tune in to a mono station.
Connect frequencycounter to 2TP23.
Adjust 2R48 for 19 kHz ±50 Hz.
(2R48 may also be adjusted by applying 19 kHz from 2TP23 to the Y-input of an oscilloscope and 19 kHz from a stereo coder to the oscilloscope's X-input.
When the Lissajous figure is stationary, adjustment is correct.
A third adjustment procedure cosists in tuning in a stereo signal on the receiver. Turn 2R48 to one side until the stereo effect ceases and thereafter to the other side until the stereo effect ceases. The intermidiate setting between these two settings is approximately the correct adjustment).
Connect stereo coder to aerial input. AFC ON.
Connect wattmeter or AC voltmeter to AF output. With 2R49 adjust for min. signal in unmodulated channel.
Adjust input signal to 30 microvolts.
Adjust 2R18 for channel separation of between 25 dB and 15 dB.

FM Level Adjustment

2R65 (left) and 2R63 (right) are factory pre-adjusted for max. output, but the AF signal from the FM section can be attenuated with these adjustments should this be found necessary.

AM-IF



Set the receiver to e.g. 575 kHz in the MW band.
Apply signal from the sweep generator to 23TP21 throught o.1 µF, centre frequency 469.5 kHz Δ 10 kHz (the 468 kHz resonators in te circuit used provide a centre frequency of approx. 469.5 kHz ±1.5 kHz).
Necessary RF voltage is approx. 10 millivolts (due to IF suppression in the IC),
However, it is recommend to stop the oscillator by connecting a 0.1 µF capacitor between pin 15 of 23IC1 and chassis potential as this will result in a considerable reduction in IF suppression. Necessary RF level will then be 10 100 µV. It is recommended to use as weak a signal as possible to avoid influence from the AGC.
Connect oscilloscope to 23TP29 (pin 6 of 23IC1). Adjust 23L6 and 23L7 for maximum and symmetrical IF curve.
Remove oscillator stop.

MW Oscillator and Signal Frequency Circuits

Connect signal generator to aerial through dummy aerial 575 kHz, modulation 30% – 400 Hz or 1 kHz.
Connect wattmeter or AC voltmeter to AF output. Set receiver to 575 kHz.
With 23L4 adjust the oscillator so that the receiver is tuned exactly to the transmitter frequency. (Use weakest possible signals throughout the adjustment procedure as this will result in the most precise adjustment).
With 23L2 adjust for max. signal at AF output.
Set signal generator and receiver to 1495 kHz.
With 23C13 set oscillator to frequency.
With 23C4 adjust signal-frequency circuit for max. signal.
Repeat adjustments until dial calibration matches correctly and signal-frequency circuits is at max.
Lastly adjust 23C4.

LW Oscillator and Signal Frequency Circuits

Set signal generator and receiver to 155 kHz.
With 23L3 set oscillator to frequency.
With 23L1 adjust signal-frequency circuit for max. signal.
Set signal generator and receiver to 285 kHz.
With 23C8 set oscillator to frequency.
With 23C2 adjust signal-frequency circuit for max. signal.
Repeat adjustment until dial calibration matches correctly and signal-frequency circuit is at max.
Lastly adjust 23C2.

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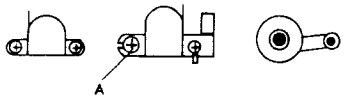
ELECTRICAL ADJUSTMENTS TAPE RECORDER

References apply to right channel (Braketed references apply to left channel).
Electrical adjustments to be made without DOLBY NR.

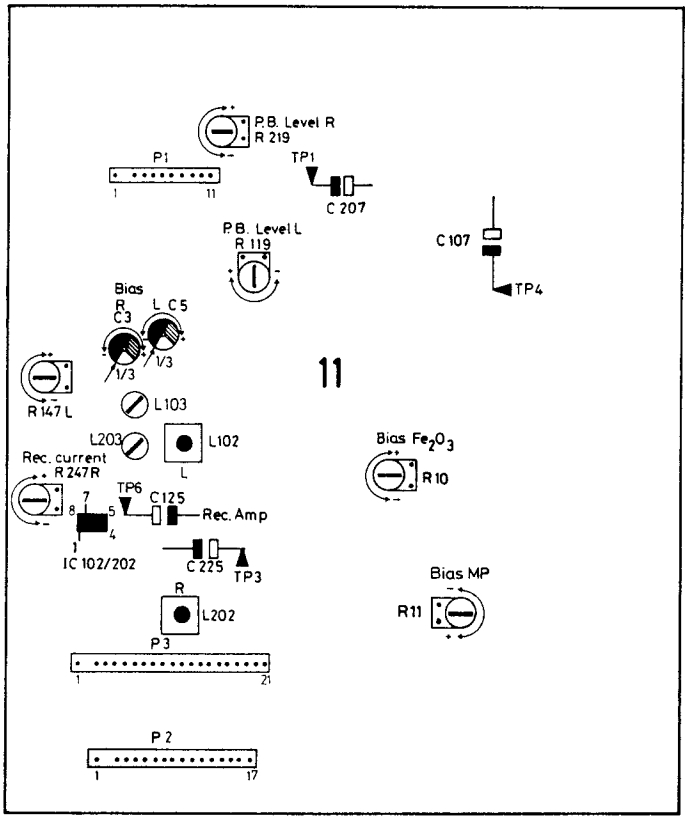
Azimuth

Demagnetise tape head and erase head.
Connect LF voltmeter to 11TP3 (11TP6).
Insert azimuth tape 6780036.



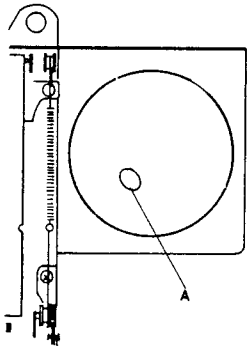
Adjust screw A for max. signal in both channels and for equal output for left and right channels (mean valut 11TP3 (11TP6)).

Playback level



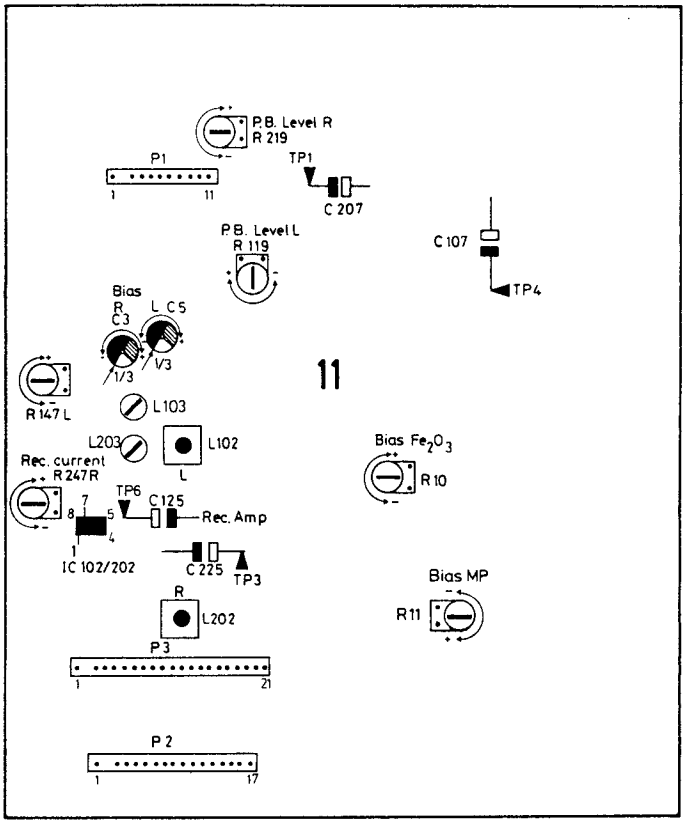
Insert Pegel tape 6780035 in cassette holder.
Connect LF voltmeter to 11TP3 (11TP6).
Adjust 11R219 (11R119) so that 725 millivolts is measured at 11TP3 (11TP6).

Speed



Insert wow tape 6780037 in cassette holder.
Connect wowmeter to 11TP3.
With potentiometer A in motor adjust for correct speed as read on the wowmeter's driftmeter.
Adjustment to be amde in the middle of the tape.

Record Boost



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Insert CrO_2 tape.
Connect tone generator to tape input and set to deliver 333 Hz in the 1-Volt range.
Activate record pause.
Adjust record potentiometer so that 316 millivolts is measured at pins 1 and (7) of 11IC202 (11IC102).
Set tone generator to 10 kHz.
Adjust 11L202 (11L102) so that 1 volts is measured at pins 1 and (7) at 11IC202 (11IC102).

Bias filter

Activate Rercord.
Adjust 11L203 (11L103) to maximum voltage, measured across the tapehead.

Bias and Record Current CrO_2

Insert CrO_2 tape 6780040 for which bias adjustment is desired set 11R247 (11R147) to midscale and 11C3 (11C5) to one-third of full scale.

Record Current

Connect tone generator to tape input and set to deliver 333 Hz in the 1-volt range.
Activate record pause.
Adjust record potentiometer so that 200 millivolts is measured with LF voltmeter at 11TP3 (11TP6).
While recording and playing back, respectively, adjust 11R247 (11R147) so that 200 millivolts is measured at 11TP3 (11TP6) during both record and playback.

Bias

Set tone generator to deliver 333 Hz in 100-millivolt range.
Adjust record potentiometer so that approx. 25 millivolts is measured with LF voltmeter at 11TP3 (11TP6).
While recording and playing back 333 Hz and 15 kHz, respectively, adjust 11C3 (11C5) so taht the level at 15 kHz is 1 dB higher than the level at 333 Hz (less bias gives treble boost; more bias gives treble cut).
Check record current.

Fe_2O_3 Bias

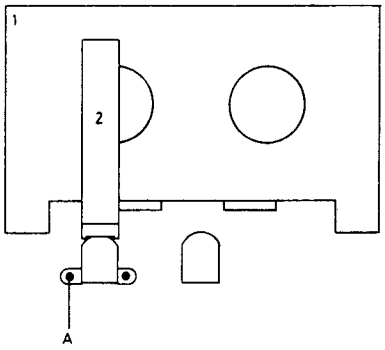
CrO_2 must be adjusted, and tone generator and potentiometer settings must be the same as for CrO_2 bias.
Insert Fe_2O_3 standard tape 6780043.
While recording and playing back 333 Hz and 15 kHz, respectively, adjust 11R10 for identical levels at 333 Hz and 15 kHz as measured with LF voltmeter in 11TP3.

MP Bias

CrO_2 bias must be adjusted, and tone generator and record potentiometer settings must be the same as for CrO_2 bias.
Insert MP test tape 6780059.
Activate METAL TP.
While recording and playing back 333 Hz and 15 kHz, respectively, adjust 11R11 till the level at 15 kHz is 1 dB higher than the level at 333 Hz, measured with LF voltmeter in 11TP3.

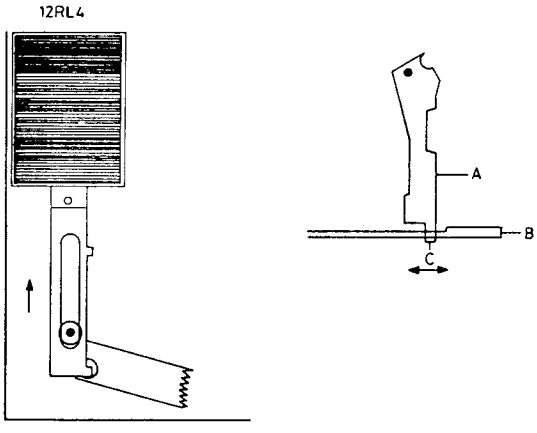
MECHANICAL ADJUSTMENTS

Erase Head Height



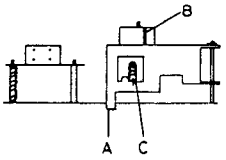
Erase head heights is adjusted with adjustment tools 1 and 2 from adjustment tool kik 3624020.
Plade adjustment tools in cassette holder as shown in sketch.
Carefully press tape head bridge in against tool 2.
With screw A adjust until tape guide goes in above tool 2.

Rewind



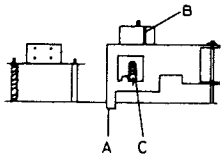
Press armature in magnet coil 12RL4 in as far as it will go.
Clearance between arm A and arm B should then be 0.5 – 1 m. Adjustment is preformed by bending the arm A so that tag C moves in one of the directions of the arrow.

Thrust Roller Free Travel



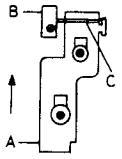
Press tape head birdge as far as it will go. Clearance between pin A on thrust roller arm and tape head bridge should then be approx. 0.5 mm.
Adjustment is performed by bending pin A.

Thrust Roller Thrust



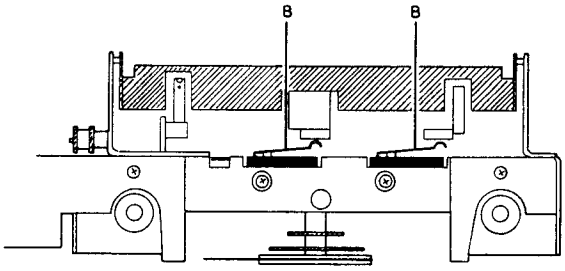
Activate play.
With spring balance at point B pull thrust roller back.
Carefully release thrust roller until it just touches the capstan shaft.
Shift spring C to one of the two notches where the spring balance reading is closest to 300 p.
Example: Spring in right-hand notch gives 280 p and spring in left-hand notch gives 330 p. Since ideal force is 300 p right-hand notch is correct adjustment.

Eject Switch



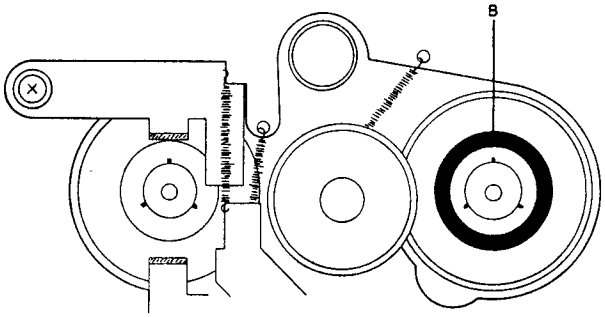
Carefully push arm A in direction of arrow, eject switch B should then open from travel of from 0.5 mm to 2 mm and before the cassette drawer releases mechanically.

Cassette Detector Record Lock



The two switches for cassette detector and record locking are bent back at the points »B« so that the switches change-over reliably when a cassette is inserted, and will change back again when the cassette is removed.

Assembler Moment



The assembler moment should be within 35/60 p/cm.
Adjustment is made by pressing the ring »B« of the assembler coil all the way down and turn it.

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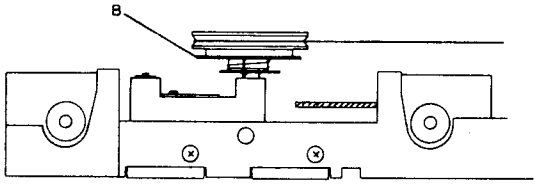
Coil Moment



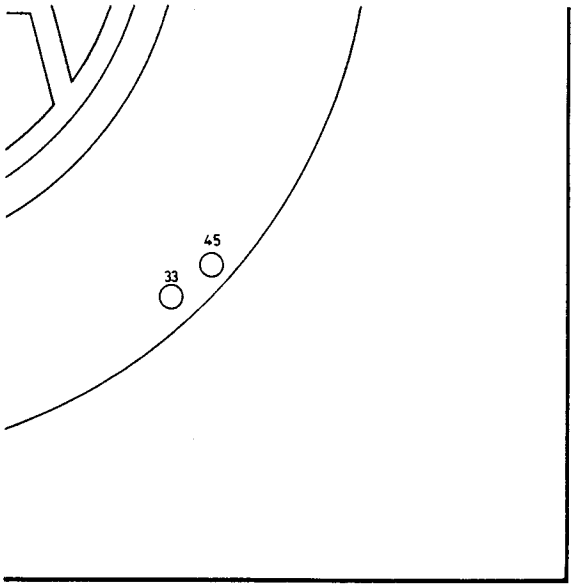
The coil moment is measured by winding forward until just before the auto stop is activated. The moment should be more than 100 p/cm.
Wind forward until end stop.
Brake to stop the motor pulley with a finger, activate forward winding, release the motor pulley slowly thus allowing the motor to start-up slowly. When the motor runs freely, read off moment. Adjustments are made by turning the disc »B«.

Lubrication

The need for lubrication is negligible, but the directions given below should be followed during overhauls and when replacing major mechanical components.

Bracket 12084: Against spring 12085. Arm 12024: Surfaces of contact against arm 12052. Balls 12037, 12059, 12061: Face slidings against leaf springs 12035, 12057, 12060, and chassis 12038. Shaft on holder 12096: Surface of contact against pulley 12097. Switch 12S4: Surface of contact against bracket 12008. Bracket 12008: Face sliding against screws 12007, 12042, and chassis 12038. Balls 12010, 12011, 12013: Face slidings against chassis 12038, and top chassis. Chassis 12038: Surface of contact against top chassis. Sensor 12065: Shaft both sides. Arms 12131, 12182: Face slidings against taps in top chassis. Pins 12130, 12201: Face slidings against top chassis. Arm 12173: Surface of contact against tap in top chassis. Bracket 12188: Face slidings against top chassis chassis 12038, andmt arms 12192, 12193. Arm 12192: Surfaces of contact against arms 12131, 12182. Arm 12193: Surfaces of contact against arm 12155, and angles 12199, 12200 Arm 12155: Surface of contact against arm 12173, and shaft for idler wheel 12152. Chassis 12156: Shafts for turntables 12022, 12044. Bracket 12199, 12200: All surfaces of contact.	3984022 Floil GB-TS-1
Bracket 12008: Face sliding at screw 12042. Arm 12155: Surface of contact at bushing 12154. Arm 12052: Surface of contact against chassis 12038.	3984216 Molykote (pasta G)
Bracket 12072: Surface of contact against arm 12041. Damping system 12081: All gear-wheels. Bearing 12165: Against flywheeel 12161.	3984021 Eprohon Grease

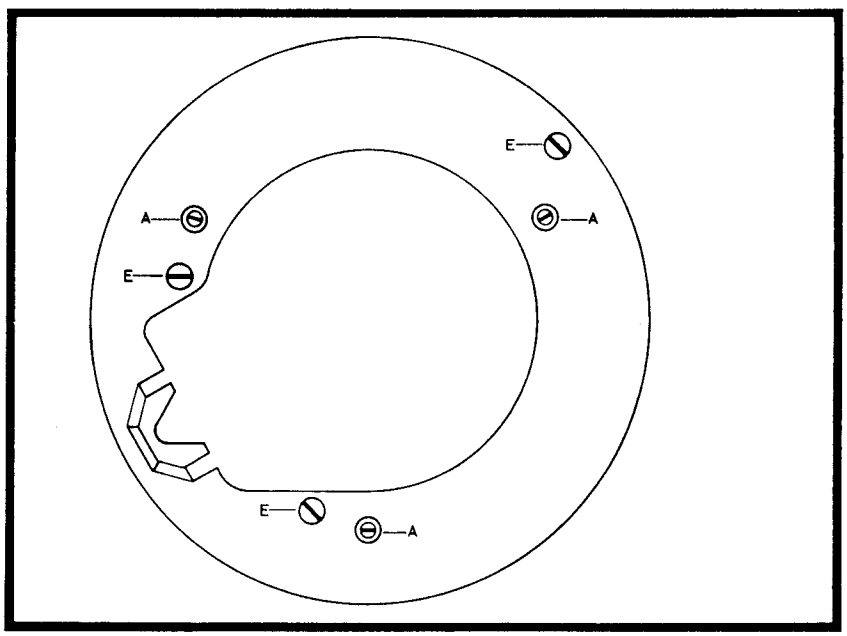
ADJUSTMENTS
RECORD PLAYER
Speed



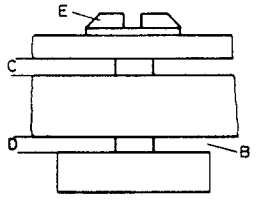
Remove the turntable so that the adjustment holes are accessible.
33 r.p.m./min. should be adjusted first. Adjust with 17R22.
45 r.p.m./min. is adjusted with 17R20.
Speed may be checked in two ways:

1. Stroboscope disc and lamp connected to the mains. This check gives an inaccuracy of approx. 2% because the 50 Hz mains frequency deviates approx. ±1 Hz.
2. Stroboscope disc and stroboscope lamp's tolerance which normally is superior to that of the mains frequency.

Turntable height



Remove covers from screws A.
Place turntable and two LP records of normal weight on the motor. The motor should then clear all three transit bushings E (see points B).
The turntable should likewise be parallel with the chassis deck, and when the two LP records are removed from the turntable, distances C and D should be approximately identical.
Adjustments are made with screws A.



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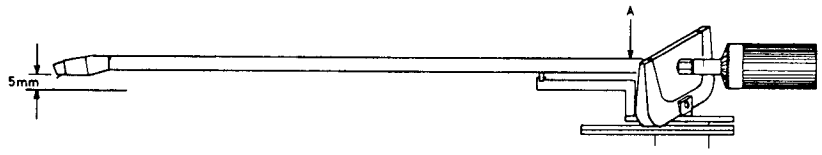
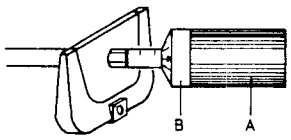
Pick-up height



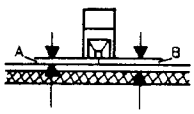
Put a record on the turntable.
Position the pick-up arm above a run-off groove.
Adjust screw A until the distance from the stylus to the record is 5 mms.
This adjustment must be made with a counterbalance weight mounted.

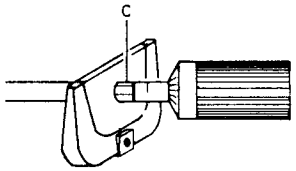
Pick-up arm balance



Turn the counter-balance weight until pick-up arm is in balance.
Hold the counter-balance weight in this position and zero the dial B.
The counter-balance weight A is turned clockwise until the dial B shows the stylus pressure required (for MMC 20" it is 1.5 grams).

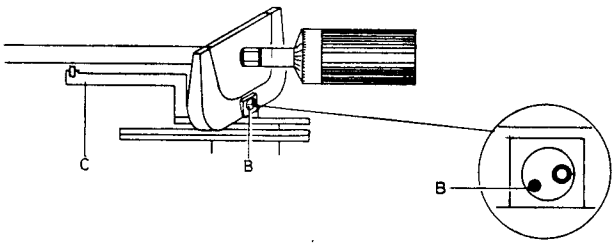
Pick-up arm parallelism





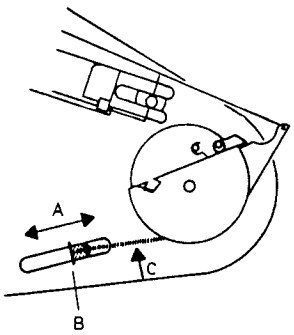
Loosen the screw C and turn the pick-up arm until the A and B clearances are equal and the straight section of the pick-up is parallel to the topside of the record.

Pick-up arm lowering



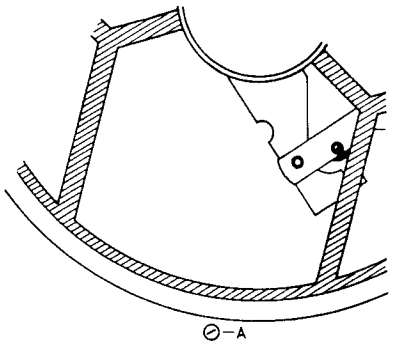
When playing a record the tap B is adjusted so that the pick-up arm positively clears the holder C.

Antiskating



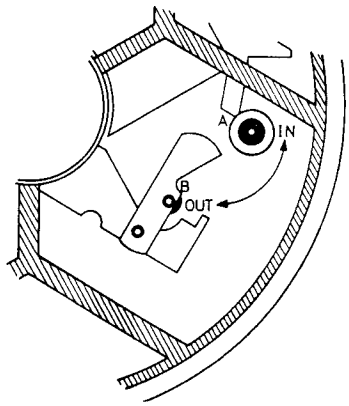
Put the test record 3621045 on the turntable.
Set stylus pressure to 1.5 grams with MMC 20S.
Play cut 1.
Connect an oscilloscope to the RH and LH channels.
Push stud B in either direction of the arrow A until there is an equal distortion in both channels (for LH channel distortion, slacken spring C, tighten for RH channel distortion).

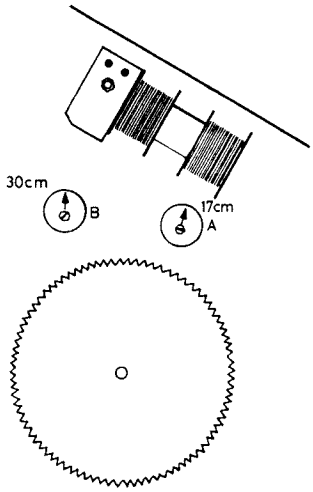
Automatic record-size mechanism



Take off turntable.
Place 60-gram weight on cnetre adaptor (60-gram and 20-gram weight kit 3624024).
Start turntable.
The centre adaptor should then be capable of lifting the weight, and the pick-up arm should travel in to 17-cm lowering.
Adjustment can be made with screw A. Turn screw A anticlockwise for greater lifting power and clockwise for less lifting power.
Place weights of 60 and 20 grams on te center adaptor.
Start turntable.
The centre adaptor should then be incapable of lifting the weights, and the pick up arm should travel in to 30-cm lowering.
Adjustment should likewise be made with screw A.

Pick-up arm lowering





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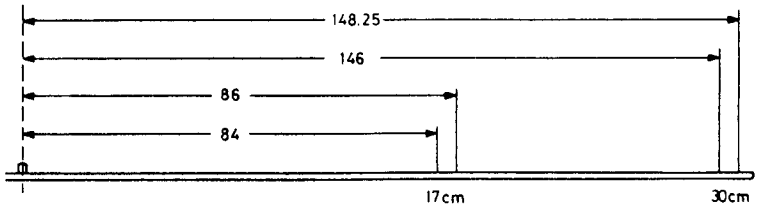
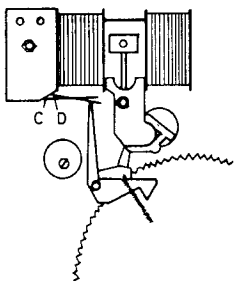
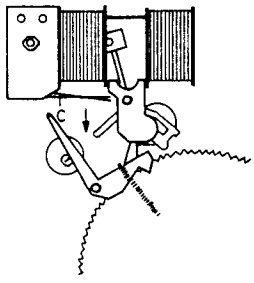
Pick-up arm lowering can be adjusted both from above and from below.
The adjustment described here is made from above.
Take 60-gram weight on cnetre adaptor.
Start turntable.
With eccentric A adjust until pick-up arm lowers inside the field marked 17 cm in the accompanying drawing.
Place 60- and 20-gram weights on the centre adaptor.
Start turntable.
With eccentric B adjust until the pick-up arm lowers inside the field marked 30 cm in the accompanying drawing.
When making the adjustment from below, a single record (17 cm) and an LP record (30 cm) may be used instead of weights.



Motor switch (15RL1)



When the Motor switch is open (the armature of the mechanical relay in its mid-position) the cleareance between the C and D sections of the switch should be 0.5 – 1 mm. This is adjusted by bending the D-section of the switch.



When the Motor switch is closed, the C-section of the switch should press at approx. 15 p in the direction of the arrow.
This is adjusted by bending the C-section of the switch.

TECHNICAL SPECIFICATIONS

Amplifier

Power output RMS DIN	2 x 40 watts/4 ohms
	2 x 30 watts/3 ohms
Power output 20-20.000 Hz	2 x 30 watts/4 ohms
	2 x 25 watts/8 ohms
Harmonic distortion -26 dB	<0.1%
Harmonic distortion	<0.1%
Intermodulation	<0.3%
Frequency range ±1.5 dB	20-30.000 Hz
Power bandwidth	10-50.000 Hz
Damping factor	>25
Input tape copy	150 mV/470 kohms
Input microphone	0.1 mV/470 ohms
Signal-to-noise ratio phono	>82 dB
Signal-to-noise ratio tape	>82 dB
Channel separation 1000 Hz	>50 dB
250-10.000 Hz	>35 dB
Output headphones	Max. 20V/200 ohms
Bass control at 40 Hz	±11 dB
Treble control at 12.500 Hz	±11 dB

FM

FM range	87.5-108 MHz
FM aerial impedance	75/240 ohms
FM sensitivity stereo 46 dB	<25 µV/75 ohms
Frequency range ±15 dB	20-15.000 Hz
Harmonic distortion	<0.4%
Stereo channel separation	>35 dB

AM

AM sensitivity LW/MW	<100/80µV (only type 1804)

Record player

Pickup	MMC 20 E
Stylus	Elliptical diamond
Radius of curvature	5 x 17µm
Frequency range	20-20.000 Hz ±2.5 dB
Channel separation 1000 Hz	>20 dB
400-10.000 Hz	>15 dB
Channel difference	<2 dB
Recommended stylus pressure	15 mN/1.5 gram
Compliance	20µm/mN
Effective tip mass	0.5 mg
Sensitivity mV/cm/sec.	>0.6 mV/47 kohms
Output 5 cm lateral	>2.12 mV/47 kohms
Tonearm	Radial
Antiskating	Integrated
Stylus pressure range	0-2 gram
Speeds	33-45 rpm.
Wow and flutter, DIN	<±0.09%
Wow and flutter, WRMS	<±0.045%
Rumble weighted	>65 dB
Rumble unweighted	>45 dB
Speed deviation	<0.5%
Motor	Servo controlled DC

Tape Recorder

Compact cassette	C60-C90
Tapehead	Sendust
Noise reduction	Dolby NR
Tape switch	Aut. ferro/chrom, manual metal
Wow and flutter	<±0.15%

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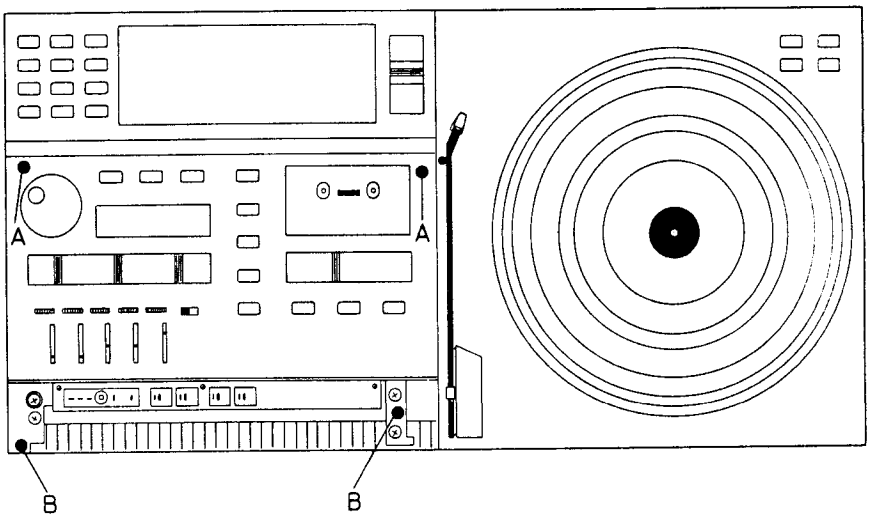
Other Data

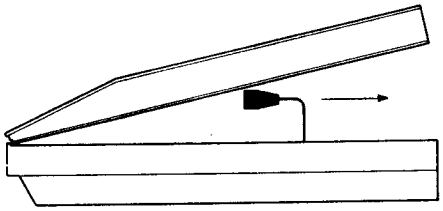
Speed deviation	<±1.5%
Fast forward rewind C60	70 sec.
Frequency range chrom metal	30-16.000 Hz
Signal-to-noise ratio chrom Dolby	>64 dB Metal >66 dB
Signal-to-noise ratio chrom	>57 dB Metal >59 dB
Erasure	>70 dB
Power supply	110-130-220-240 volts
Frequency	50-60 Hz
Power consumption	20-250 watts
Dimensions W x H x D	72 x 9.5 x 38 cm
Weight	16.5 kg

Subject to change without notice

DISMANTLING
Operation section



Remove screws A and B. Lift the back edge of the unit approx. 10 cms (4") and disconnect the internal connections for loudspeakers and aerial.



The operation chassis can now be lifted into servicing position on the support mounted on the inside of the cabinet.

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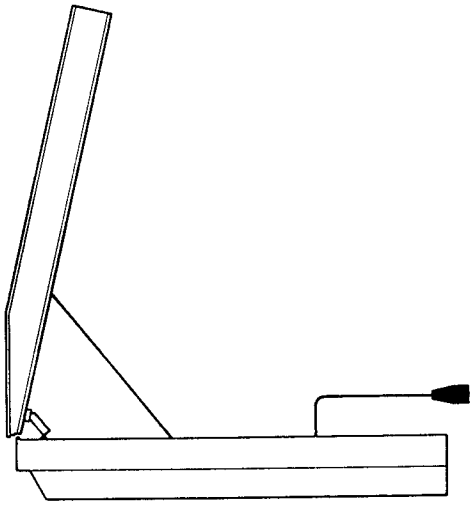
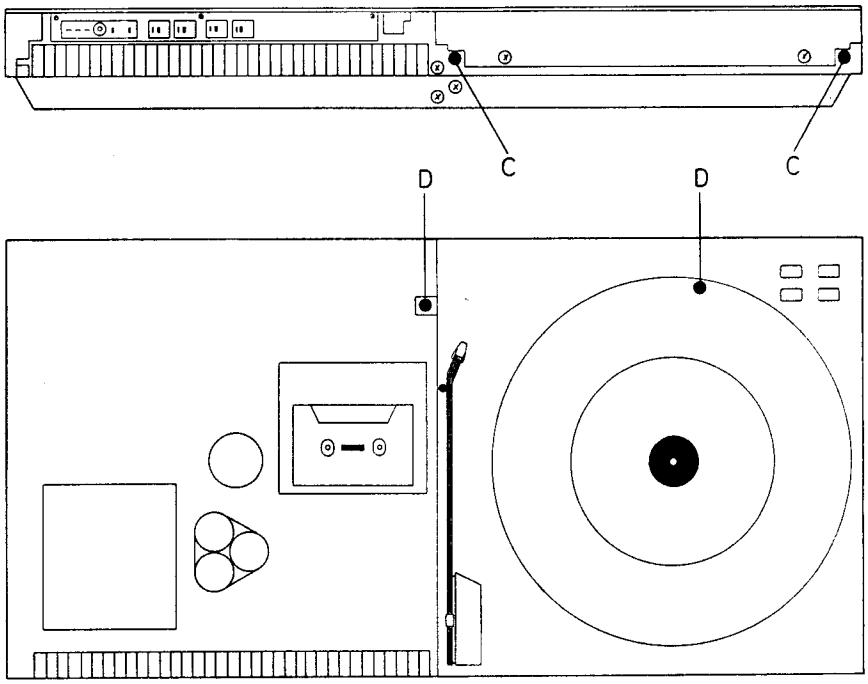


The loduspeakers can be connected direct to the wires from the output amplifier.

Record player section



Remove screws C and D when the operating section has been lifted into servicing position. Now lift the back of the record player into servicing position just like the control section.

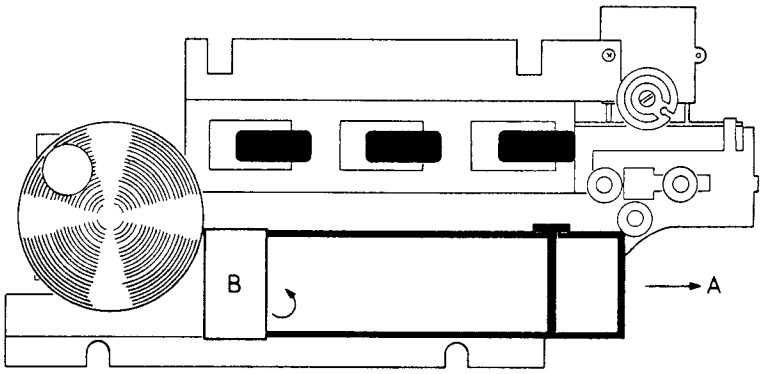
SERVICE TIPS

Measurement of defective output amplifier

Should a fault arise in an output amplifier resulting in DC on the loudspeaker output, the fault switch circuit will put the set in STAND-BY. The connected loudspeakers must then be disconnected and the set can now be turned on and measurements be made unless there is a direct short-cirucuit in the output transistors.

Replacing dial lamp

The AM module is removed. The dial housing is pushed in the direction of the arrow (A). The cover (B) can now be opened and the lamp replaced.



After replacement the dial housing is pushed back into its original position.

Removal of servicing hinges

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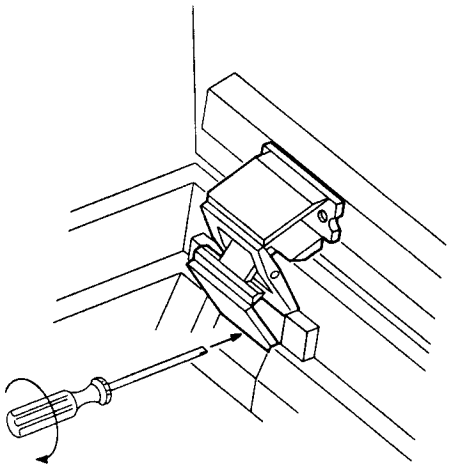
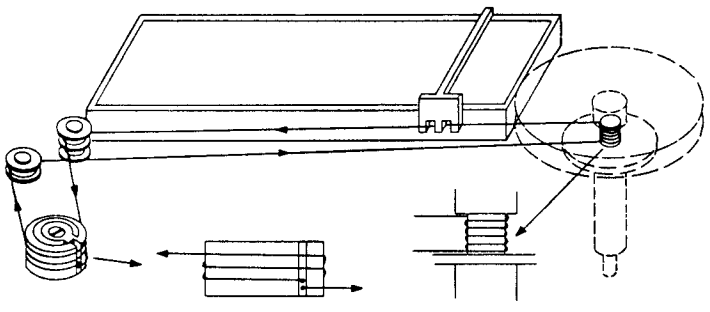


If removal of the operation chassis and the record player chassis is required, the hinges can be removed by twisting with a broad and strong screwdriver under the hinge.

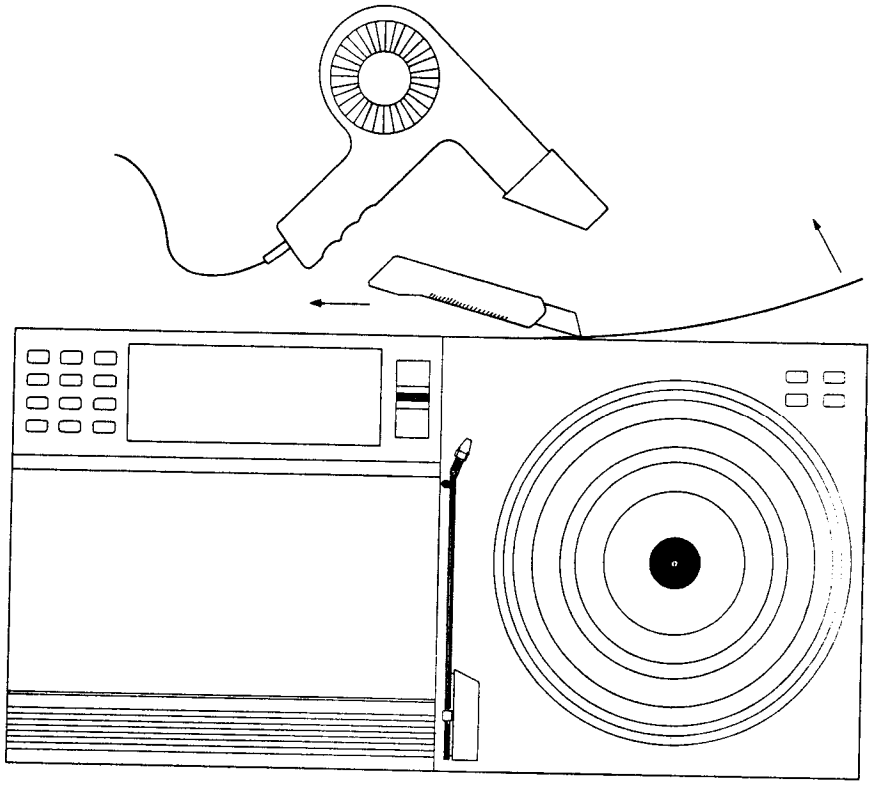
Dial drive



Dial cord (index No. 3955016) is cut off at a length of approx. 60 cms (23½") and knotted at both ends with 55 cm (21¾") between the knots. The tuning capacitor is turned counter clockwise and the cord is fitted as shown in the drawing.

Cabinet repairs and panel replacement

The cabinet kit consists of a set of veneer panels with a back coat of self-adhesive tape and protective paper.



For Service Manuals Contact
MAURITRON TECHNICAL SERVICES
8 Cherry Tree Rd, Chinnor
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The easiest way to remove the old panels is to heat them with a hot air blower (hair drier) and slowly to peel the old veneer panels off. It is advisable to follow with a Stanley-type knife along the edge of the foam chassis while peeling the veneer off.

If the adhesive coat is intact after panel removal the new panels may be fitted direct on top of the old coat of adhesive. If, however, the old coat is rough it must be removed with benzine prior to the fitting of the new panels.

The side panels must be stuck on first and in such a way that they flush with teh front edge. The front panel must be stuck on so that one corner fits the side panel after the mounting, the second corner must be cut flush by using a **sharp** Stanley-type knife or a mortise chisel.

Wow frequencies

Frequency	Source of Failure	pos. No.
1,1 Hz	Thrust roller	12049
1,3 Hz	Take-up reel	12044
4,3 Hz	Drive belt	12162
4,5 Hz	Take up belt	12140
5,2 Hz	Idler wheel	12041
6,0 Hz	Flywheel	12161
11,8 Hz	Cluth	12135
36,5 Hz	Pulley	12101

INSULATION TEST

Insulation test for Beocenter 5000

Each set **must** be insulation tested after dismantling. The test is to be performed when the set has been re-assembled and is ready for delivery to the customer.

Make the insulation test as follows:
Short-circuit the two plug pins of the mains plug and connect one of the terminals of the insulation tester. Connect the other terminal of the insulation tester to the chassis pin of one of headphone sockets.

N.B.!
To avoid rouining the set, it is essential that both insulator test terminals are in really good mechanical contact.

Now turn slowly the voltage control of the insulation tester until a voltage of 1.5 – 2 kV is obtained. Hold it there for 1 second, then turn slowly the voltage down again.

At no point during the testing procedure any flash-over are permissible.

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